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GRAIN & FEED JOURNALS CONSOLIDATED

A Merger of Grain Dealers Journal, American Elevator & Grain Trade, Grain World and Price Current-Grain Reporter

A Hoosier Elevator Goes Traveling

For Facts Regarding Tour See Page 119

Directory of the Grain Trade

In Organized Markets Only Members of the Local Grain Exchange Will Be Listed

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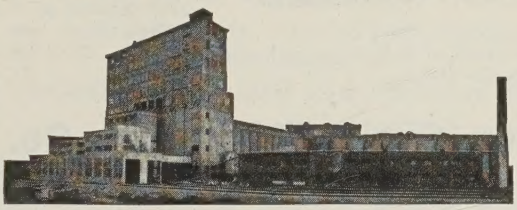

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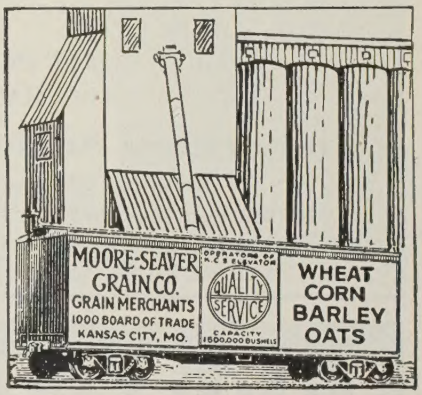

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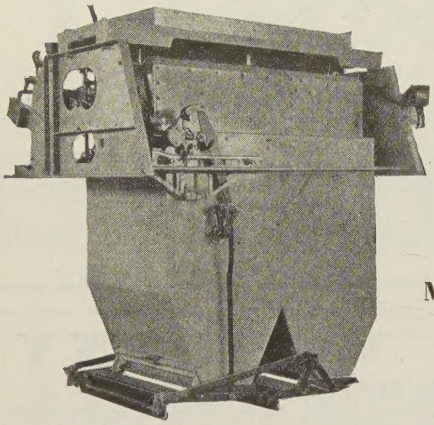

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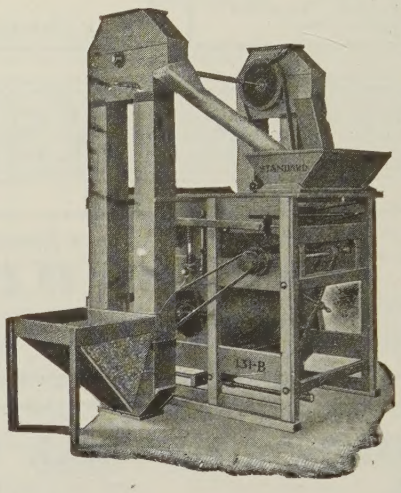

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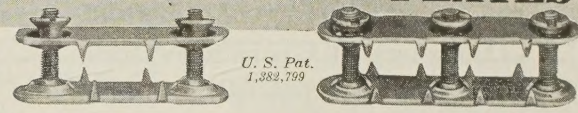

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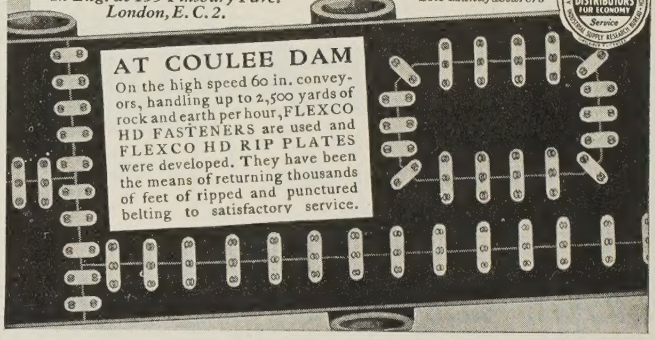

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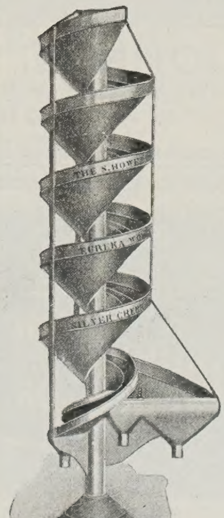

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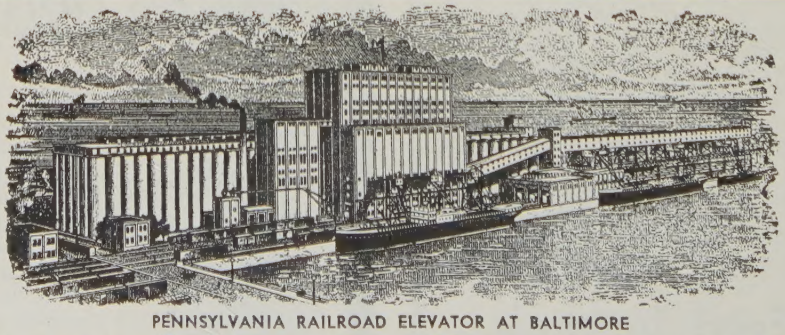

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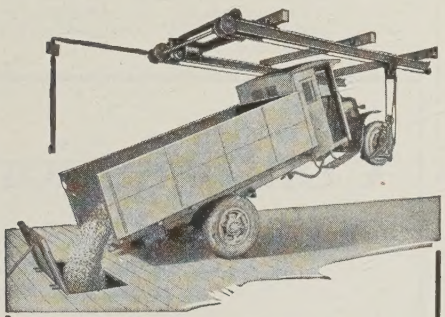

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Will Solve Your Dust Problem
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Consult Us. No Obligation.

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Coon Rapids, Ia.—I have taken the Journals for 23 years and could not get along without it.—William Grettenberg, Wm. Grettenberg Grain Co.

Wanted and For Sale

The rate for advertisements in this department is 25 cents per type line each insertion

ELEVATORS FOR SALE

EAST CENTRAL ILLINOIS elevator for sale; Doing good business in good farming Community; electrically operated; priced at a bargain. J. Kemp Carson, Clarence, Ill.

INDIANA—20,000 bus. elevator, in A1 condition; electrically operated; iron clad; brick office and 57x36 new, modern salesroom; warehouse frame; handle feeds, seeds and implement repairs; coal sheds. Located Veedersburg, Ind., pop. 2,500; three railroads available for shipment of grain; only elevator in town; possession immediately. For further information write F. F. Finch, Veedersburg, Ind.

MUST SELL TO CLOSE ESTATE

Located on C.,M.St.P.&P. R.R in rich agricultural County in Illinois. The only business at station, so possibilities of lines of trade without limit. Large grain shipping station.

New modern frame grain elevator 24x30x40 ft. to eaves with 12" concrete walls, concrete floors, man lift, dump scales, driveway leanto over scales and office. Fairbanks automatic grain scale. Machinery alone cost over $2500. Adjoining engine house with Sandwich 8 HP. engine. A frame corn crib—8x38—11 to 12 feet high, in good condition. A metal clad 16x20 feed and cement shed with 20x56 frame coal shed attached, cement foundation, floors, and partial concrete walls, all painted, in good condition and appearance. Seven-room, two-story house, modern, costing over $4,000 to erect, a 54x108 frame lumber shed open, with center driveway. A new store building and office erected in 1934—size 20x24—modern in every way. Scale shed attached.

All buildings fully equipped, in good physical and working condition. Elevator just covered with copper alloy siding, and most buildings just painted. Stock consists of lumber, coal, hardware, twine, salt, seed and feed in season posts, tile. Competition friendly. Replacement value of buildings $20,950.00. A real bargain—small fraction of replacement. Address 78J14, Grain & Feed Journals, Chicago.

ELEVATORS FOR SALE

INDIANA—10,000 bu. elevator, with warehouse and other equipment; with 2 acres land for sale. New and used machinery for mills and elevators. T. A. McWilliams, 115 E. St. Catherine, Louisville, Ky.

EWART, IOWA.—Grain elevator for sale; electric; ready to handle this year's excellent crop; will sacrifice for cash; terms if desired. Write for full particulars. Wells-Hamilton Grain Co., Ewart, Iowa.

N. CENTRAL OHIO fireproof grain and seed elevator; silo type; 19,000 bu. cap.; good location; retail feed and coal; 1¾ a. land; scales. cleaners, etc.; stockyards. Bargain. Peoples Savings Bank Co., Mt. Gilead, Ohio.

INDIANA—12,000 bu. elevator for sale; wood; complete modern equipment; newly painted; 65' warehouse adjoining, metal clad; two large wagon and truck scales; large coal yard and lot. Splendid location for grain and feed trading. R. P. Kellam & Son, New Lisbon, Ind.

MONTANA—14 tank steel elevator, fully equipped; 2 Fairbanks Hopper Scales; manlift; receiving separator; Nordyke feed roll; pneumatic truck lift; 40 hp Fairbanks-Morse motor; reasonable rates and ready to go on this crop; location Gallatin Valley; best buy in state. Address 79P11, Grain & Feed Journals, Chicago, Ill.

IDAHO—Our entire line of grain elevators in the best dry farming and irrigated sections of the state is for sale. This is going business and a money maker. Consists of four elevators and two warehouses. Priced to sell account of ill health of one member of firm. If interested come and look it over. Thomas Brothers, Ashton, Idaho.

THE WANTED-FOR SALE DEPARTMENT of GRAIN & FEED JOURNALS is a market place where buyer and seller, employer and employe, and those offering investments can meet to their mutual advantage and profit and it will pay every subscriber to give these columns a close study twice each month, because of the constantly changing variety of opportunities seeking your consideration.

ELEVATORS TO LEASE

WANTED TO LEASE elevators in good crop location; state lease wanted and class competition. Add. 78M6, Grain & Feed Journals, Chicago.

ELEVATORS WANTED

WANTED TO RENT elevator in Michigan; state capacity, equipment, yearly volume; name railroad. Address 79P13, Grain & Feed Journals, Chicago, Ill.

BUSINESS OPPORTUNITIES

SECTIONAL STEEL TANKS for sale; 14 ft. diameter, 36 sections each 2 feet high. Good condition and tight. Will k. d. and ship. White Elevator Co., El Paso, Ill.

ILLINOIS lumber yard for sale; good location; doing profitable business. Might trade for good grain elevator. Address 79P5, Grain & Feed Journals, Chicago, Ill.

FEED MANUFACTURING plant in S. E. Penna.; all or part interest; going concern; long established; thoroughly equipped; modern; best shipping and transit facilities; exceptional value and proposition. Address 79P12, Grain & Feed Journals, Chicago, Ill.

IF YOU DO NOT find the elevator you want advertised, place your wants in the "Elevators Wanted" section and you will receive full particulars regarding many desirable properties not yet advertised.

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Simple - Complete - Safe

If you would avoid trade disputes and differences, and prevent expensive errors, use triplicating confirmation blanks. You retain tissue copy, sign and send original and duplicate to customer. He signs and returns one and retains the other.

This places the entire burden for any misunderstanding of your intentions upon the other party and protects you against the expensive misinterpretation of your trades.

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Fifty confirmations in triplicate, bound with pressboard and wire stitched, size 5½x8". **Order Form No. 6 CB. Weight, 9 oz. Price 75c; three copies $2.00, plus postage.**

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Gentlemen:—In order to keep us posted regarding what is going on in the grain and feed trades outside our office, please send us the *Grain & Feed Journals* twice each month. Enclosed find Two Dollars for one year.

Name of Firm.....

Capacity of Elevator

Post Office .....

..... State .....

MACHINES FOR SALE

CORN CUTTER & Grader—has motor—used very little. 79N12, Grain & Feed Jrnls., Chicago.

FEED MIXER—one ton—floor level feed—has motor—good as new. Write 79N14. Grain & Feed Journals, Chicago, Ill.

HAMMER MILL with 25-h.p. motor and all attachments. Priced to sell. Write 79N13, Grain & Feed Journals, Chicago, Ill.

FEED MIXER for sale, has motor, and a late machine. Need space. Will sacrifice. Write 79N15, Grain & Feed Journals, Chicago, Ill.

IDEAL HESS PNEUMATIC GRAIN DRIER, complete in good working condition; capacity 130 bushels, for sale cheap. Lacharite Grain Co., Assumption, Illinois.

DOAK SPOUT HOLDER, best on earth, price $10.00. Satisfaction guaranteed. Full information on request. Superior Manufacturing Company, Albert City, Iowa.

FOR SALE—Second hand feed and elevator machinery; Tag-Heppenstall Moisture Meters; Bolinder Diesel Engines. Weaver Sales Corp., Corn Exchange, Minneapolis, Minn.

CALKINS DUSTERS, two, complete; treaters and separators; one No. 4 Howe separator; one No. 3 new ball-bearing cob crusher; new grain blower with 10 hp motor. Clark L. Smith & Son, Leola, Lancaster Co., Pa.

FOR SALE—Three 15 cy. K.V.A. Transformers; one control box rheostat; 50 hp GE starter box; 50 hp F-M Motor; new belt pulley 12" face, 14" dia.; all in good cond., reasonably priced. Spec. on request. Elkhart Mills, Elkhart, Kans.

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Pipe, Corrugated Metal Roofing
Guaranteed Good Condition
Pipe, cut lengths for fence posts.
Stockyards Lumber Co.,
4600 S. Halsted St.,
Union Stock Yards Chicago, Ill.

MACHINERY BARGAINS
Big Chief Hammer Mill, also J. B., Gruendler and Papec Hammer Mills; motor and belt driven attrition mills, all makes and sizes; Vertical Batch Mixer (new), Motor and Belt Driven; Clipper and Invincible Cleaners; ½ & 4 bu. Richardson Automatic Scales; 6 bu. Fairbanks Automatic Scale; Hopper & Dial Scales; Magnetic Pulley; Horseshoe Magnets; Spout Magnets; 2 & 3 pr. high Feed Rolls; Corn Cutter & Grader (new); Kelly-Duplex Cracker & Grader; Clark Power Shovel; Dreadnaught & Western Corn Shellers; Cob Crusher; 25 & 50 bbl. Midget Mills; Engines, Motors. A complete line of Feed and Elvtr. Equipment. An Engineer at your service. A. D. HUGHES COMPANY, WAYLAND, MICH.

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A boon to the grain dealer who keeps a convenient, permanent record of daily market quotations for ready reference.

This book provides spaces for recording hourly quotations on Wheat, Corn, Oats, Rye, and Barley. Spaces for a week's markets on a sheet; sixty sheets in a book. Order Form CND 97-5, Price $1, plus postage. Shipping Weight, 1 pound.

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FOR SALE—Brand new 29D-BB Clipper cleaner, ample screens. Only cleaned two thousand bushels. Electric motor, shaft, pulley, etc. Priced to sell quick. Consumers Coal Company, Sault Ste. Marie, Michigan.

ALL MACHINERY for 25 bbl. Midget; excellent condition; 25 hp. type Y Fairbanks-Morse Engine; barrel size flour mixer; large ear corn elevator; three high Anthony steel burr mill; good Williams stone burr; Draver chemical feeder. Aydt Mills, Dahlgren, Ill.

SCALES FOR SALE

MOTOR TRUCK SCALES. Bargains. All capacities. Used scales. Money back guarantee. Salesman wanted. Bonded Scale Company, manufacturer. Dept. GFJ, Columbus, Ohio.

SCALES WANTED

WANTED—Richardson automatic elevator scale. Farmers Milling Co., Valdosta, Ga.

SITUATION WANTED

POSITION WANTED with elevator and lumber yard; experienced in both; references. Add. 79Q1, Grain & Feed Journals, Chicago, Ill.

POSITION WANTED by experienced grain and feed man; competent to take full charge of plant; best of references furnished. Address 79Q7, Grain & Feed Journals, Chicago, Ill.

WANT POSITION as manager country elevator; 7 years' experience as grain, feed, seed, hay, coal, gas, and oil dealer; available at once; good references. Box 11, Van Wert, Ohio.

SAMPLE ENVELOPES

SAMPLE ENVELOPES—SPEAR SAFETY— for mailing samples of grain, feed and seed. Made of heavy kraft paper, strong and durable; size 4½x7 inches. Have limited supply to sell at $2.35 per hundred, or 500, $10.00 plus postage. Sample mailed on request. Grain & Feed Journals, 332 S. La Salle St., Chicago, Ill.

SEEDS FOR SALE

ILLINI, Manchu, Dunfield Soy Beans, Reid's, Krug and 90 Day Yellow Seed Corn. Booking Hybrid for 1938. Central Market, Macomb, Ill.

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SAVE on MOTORS and GENERATORS
Write for new Free Catalog of guaranteed rebuilt Motors, Generators, Pumps, Compressors, etc. We Save you Half. Your Idle equipment taken in trade. Specials in totally enclosed motors, as well as other Bargains.
Chicago Electric Co., 1331 W. 22d St., Chicago.

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Large stock of motors and generators, A.C. and D.C., new and rebuilt, at attractive prices. Special bargains in hammermill motors, 25 to 100 H.P., 1200 to 3600 R.P.M. Write for stock list and prices. Expert repair service.
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REBUILT ELECTRIC MOTORS, Save 50% on your motor cost and secure fully reconditioned motors—All types and sizes—one year guaranteed. High speed and enclosed motors for mill and elevator service our specialty. Complete motor repair and rewinding service. Send for Bulletin No. 55 32 illustrated pages of motors, compressors, etc., at money saving prices. Rockford Electric Equipment Co., 728 South Wyman Street, Rockford, Illinois.

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Designed particularly for grain dealers receiving a number of loads of grain from the same farmer, as when an entire crop is marketed by helpful neighbors. Simplifies and expedites recording of each load delivered. Two tickets to a leaf so that loads from two farmers may be separately recorded without turning a leaf. Lines for recording 23 loads on each ticket. Space provided at bottom of each ticket for total net pounds, net bushels, check number, and amount given in settlement. 120 tickets, size 5¼x8½ inches. Duplicating. Originals of goldenrod bond paper, duplicates of manila. Spiral bound so that book lays absolutely flat, or may be folded back upon itself in open position to facilitate entries. Shipping weight 2 lbs. Order Crop Delivery Record Form 69 Spiral. Price $1.20, plus postage.

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Consolidated
332 S. La Salle St. Chicago, Ill.

Improved Grain Tickets

Owner
Hauler
Grain | Grade | Dockage
%
Gross
Tare
Net
Total Dockage
Net Pounds
Bushels
Price Amount $
Storage Ticket No.
Check No.
Station
No. 19
Weigher
Name of Firm or Buyer
(Illustration is one-half size of original ticket.)

Using Form 19GT as a scale book saves much time and labor as one writing with the use of carbon will give you a complete record and a ticket for the hauler.

Each of the 125 original leaves bears four scale tickets, printed on white bond, machine perforated. Each ticket is 3 inches wide by 6⅜ long. The 125 duplicate leaves are printed on manila, but not perforated. Check bound at top of tickets with hinge top cover, 500 tickets in each book arranged horizontally. Each book is 7½x12 inches, supplied with 5 sheets of No. 1 carbon.

Duplicating. Weight, 2½ lbs. Order 19GT Dup. **Price $1.20, plus postage.**

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Cash with order for twelve books earns 10% discount.

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AGAIN, Fairbanks-Morse widens the effective use of Diesel power—opens up ALL its advantages to numerous users who have had to be content with compromises.

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Available in 60 hp. or 90 hp. at 450 RPM, the F-M 42 Diesel is little brother of the world-known F-M 32. It is unexcelled in work-per-dollar with its 2-cycle, backflow scavenging design and its thorough, automatic lubrication. Simplified on the principle that one part is twice as desirable as two for doing a job, the F-M 42 is exceptionally easy to operate and economical to maintain.

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Diesels

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THE PNEUMATIC GRAIN MACHINERY CORP.

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Maximum Efficiency because of DOUBLE FILTER CHAMBERS! (Patent 2,000,064.) Two-in-one protection at lower cost than old types! Revolutionary construction, light weight, collapsible to fit the pocket! Easy breathing—clear vision—with unique Face Cloth for *comfort*. Why Breathe Dusts, Paint Sprays, Fumes, etc. ORDER YOUR "DUPOR" TODAY! PRICE $18.00 per dozen. Extra Pads, 1c each.

H. S. COVER 1937 Chippewa St. South Bend, Ind.

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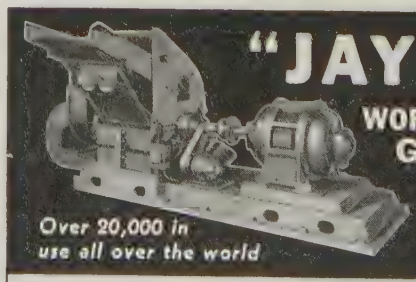

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Charles S. Clark, Manager

A merger of
GRAIN DEALERS JOURNAL
Established 1898
AMERICAN ELEVATOR & GRAIN TRADE
Established 1882
THE GRAIN WORLD
Established 1928
PRICE CURRENT - GRAIN REPORTER
Established 1844

Published on the second and fourth Wednesdays of each month in the interests of better business methods for progressive wholesale dealers in grain, feed and field seeds. It is the champion of improved mechanical equipment for facilitating and expediting the handling, grinding and improving of grain, feeds and seeds.

SUBSCRIPTION RATES to United States, Canada and countries within the 8th Postal Zone, semi-monthly, one year, cash with order, $2.00; single copy current issue, 25c.

To Foreign Countries, prepaid, one year, $3.00.

THE ADVERTISING value of the Grain & Feed Journals Consolidated as a medium for reaching progressive grain, feed and field seed dealers and elevator operators is unquestioned.

Advertisements of meritorious grain elevator and feed grinding machinery and of responsible firms who seek to serve grain, feed and field seed dealers are solicited. We will not knowingly permit our pages to be used by irresponsible firms for advertising a fake or a swindle.

LETTERS on subjects of interest to those engaged in the grain, feed and field seed trades, news items, reports on crops, grain movements, new grain firms, new grain elevators, contemplated improvements, grain receipts, shipments, and cars leaking grain in transit, are always welcome. Let us hear from you.

QUERIES for grain trade information not found in the Journal are invited. The service is free.

CHICAGO, ILL., AUGUST 11, 1937

CORN IS so high and still growing rapidly in Clinton county, Iowa, that the sheriff has issued a formal warning to air plane pilots to keep above the clouds, as vigilant farmers are guarding their field with repeating rifles. Corn always did grow tall in I-o-w-a.

YOU MAY think your elevator is the home of all the rats in the world, but the rat census of the U. S. A. counts only one for each human, or about 128,000,000. If you think the number is excessive, feed them redsquill, reduce the rat population and save the bushel of grain now consumed by each rat yearly.

THE SPREAD of three cents between September and May oats at Chicago again offers the country elevator operator an opportunity to get set to earn storage charges on oats he expects to buy from the farmer. Sell the May and buy an equal amount of September at the same time. Later when the oats come in sell the September and remain short of the May.

THE SEARCH of the prize lists now being circulated by the county fair associations of the country do not disclose the expected prize of $1,000 to be offered by the Department of Agriculture for the farmer in each county producing the fewest bushels of wheat to the acre. An opportunity lost.

IF YOU and your employes want to have something to say about the hours you will run your plant each week and the wages that shall be paid, better write your representatives in Congress; they seem to be obsessed with the perverted idea that you know nothing about it and should be *denied* the right to contract.

ADJUSTING belts on moving pulleys is a most hazardous practice that no elevator operator can afford to follow, yet we are frequently called upon to report the serious injury to one more operator for attempting this dangerous feat. Our Illinois news column this number, supplies the evidence of one more deplorable accident of this character.

MINNESOTA farmers and grain buyers are holding claims of doubtful value against one shrewd trucker aggregating more than $13,000 and yet they continue to deal with other nomads of unknown address and responsibility. Have you one of the Journal's posters bearing portraits of truckers arrested for operating trailers and hydraulic jacks? A copy should be tacked up in the office of every dealer interested in protecting farmer patrons from these roaming swindlers.

THE DRIVER of a truck with an extra heavy load of grain was crushed between his truck and the wall of an Audubon, Iowa, elevator when the light floor of the scale platform gave way. Even 20-ton scales are none too strong for many of the heavy loads delivered today. A large sign at the entrance to every driveway warning truckers against running trucks with excessive loads onto scales would help to save scales from damage and truckers from injury. Try it.

NOTICES of the installation of 30-ton scales with decks large enough to accommodate the largest trucks or trailers are appearing in our news columns with increasing frequency, proving that grain dealers are beginning to recognize the great advantage of speeding up the obtaining of accurate weights of grain purchased. Improved highways and larger trucks encourage the marketing of heavier loads, so it behooves the buyer, who is eager to increase his volume, to enlarge and speed up his handling facilities at every point. The small capacity scales and the tin cup legs are obsolete. The movement of grain from the farm to the elevator in larger units is forcing the country buyer to become a real wholesaler.

EVERY ONE seems to be in favor of the Government's retiring from the transportation business and turning the barges of the Inland Waterways Corporation over to private enterprise. This would insure better service. Whenever any government has attempted to serve in any capacity it has made for waste, inefficiency and extravagance.

NOW THAT the National Mediation Board has granted the fourteen non-operating classes of railroad employees an increase in wages which will cost the railways many millions a year, the producers and consumers will be called upon to pay the bill. Political regulation of the railways or any other business enterprise can be depended upon to wreck it.

GERMINATION tests of shrivelled wheat give most discouraging results, so grain buyers who are anxious to improve their chance of having a crop to handle next year owe it to themselves to warn their farmer patrons against using low test wheat for seed. Heavy plump grain well cleaned and treated for smut is the only seed farmers can afford to sow. The extra cost and care generally increases yields and profits.

FITTING a leg with cups of different forms or shapes will never give maximum results for the power expended and can not be expected to prove satisfactory. To attain efficiency each leg must be equipped with buckets of uniform size, shape and capacity. Buckets must be spaced an equal distance apart and at right angles to the direction of the belt. Every elevator operator knows that a loose hanging or broken bucket will not do its share of elevating, yet shortsighted superintendents tolerate these cripples and wonder why the leg does not give the desired result.

ACCEPTING the principle that the farmer must be subsidized by the taxpayers there seems nevertheless to be no justification for the soil conservation policy of rewarding the prosperous farmer who cuts down the production of his fertile lands, thus reducing the amount of grain to be handled by the grain dealer. Consulting his own interest the individual farmer tries to circumvent the policy of scarcity by working his best acres and using liberal quantities of fertilizer. Thus it is that the yield of cotton per acre in 1937 is 223.3 pounds, the highest on record, exceeding the previous high yield of 1898 which was 223.1 pounds. The cotton growers, having produced 3,200,000 bales more than last year, are clamoring for a subsidy based on a new parity price taking into consideration taxes and higher prices of what he has to buy, ignoring the fact that it is government interference with production of things he has to buy that has raised the prices against him.

LIGHT WEIGHT wheat may make a strong flour and have some milling value, but the official grading standards of the federal government have test weight as the principal factor. Wheat weighing less than 54 pounds to the measured bushel falls into No. 5 or sample grade and if tendered on a deferred delivery contract for No. 3 gives the buyer an opportunity to reject if the market is down or to demand an unreasonable discount if the price has advanced. Off grades are a source of loss on every crop, but this year the situation is much worse on account of the excessive quantity of light weight wheat produced this year. The country buyer can protect himself only by taking discounts in line with those prevailing in terminal markets.

Dust Hazard Legislation

An apparently harmless bill, H. R. 7971, directed against mines and quarries in which silica dust is present, contains a menace to grain handling and processing establishments in the clause forbidding shipment in interstate commerce of goods from any place of employment in which "other harmful dust" is present.

It is provided that the Secretary of Labor shall make the necessary investigations and order the installation of safeguards to eliminate "harmful" dusts from any industrial occupation. Shipment of goods from a plant containing harmful dust is made punishable by a fine of $1,000 and a year in jail.

If enacted into law, unquestionably some burocrat determined to expand his power over all industry will pronounce the dictum that grain dust is harmful and thereby assume authority over all grain handling plants. In so holding the burocrat will find plenty of support from medicos hoping to find a sinecure in his department.

The preponderance of medical opinion, however, is that there is a vast difference between mineral dusts such as silica and organic dusts from cereals. The mineral dusts stay in the lungs and form scar tissue that permanently diminishes the effective breathing area of the unfortunate. Grain dusts on the other hand are dissolved if they are not wafted out by the waving cilia of the bronchial tubes, and leave absolutely no trace. The burocrats can be expected to ignore this scientific fact by perverting "harmful" in the law to mean "disagreeable," under the section of the act authorizing the Secretary of Labor to send a flock of agents into any place where it is believed dust hazards exist.

The bill should be amended by striking out "other harmful dusts" and substituting "other mineral dusts" thereby accomplishing what was desired by its author, a congressman from the mining state of Montana.

Uniform Practices in Posting Prices

If all grain buyers would post the prices they are bidding for grain in driveway of elevator, farmers would have more confidence in their bids and waste less time in trying to cajole elevator operator into overbidding himself. By posting prices and sticking to them, farmers come to recognize that the elevator operator is bidding all the market justifies for grain.

Recent investigations have disclosed a variation in bids due to the changing of prices at different hours of the day. It would be much better for all concerned if all prices were changed either at the opening of the market in the morning or else at the close of each day. Then prices would be more uniform at neighboring stations and fewer farmers would have occasion to suspect their favorite elevator operator guilty of paying less than the market for their grain.

Uniform methods and practices in any section of the trade in buying grain are more likely to promote satisfaction with growers, while wide variation in either methods or practices is more than likely to promote dissatisfaction and discord.

Publicity for Contract Stocks

Buyers of wheat in the pits have always been interested in the quality and amount of grain in store deliverable on their contracts of purchase; and under the regulations of the state grain registrar in Illinois it has been the practice to give this information to the trade. It is just as natural as it is for the citizen to be informed of the amount of gold in government vaults back of the gold certificates or the silver behind the silver certificates that pass from hand to hand.

Now since two-thirds of the storage delivering grain on Board of Trade contracts at Chicago have become federally licensed they are not required to give out information on the grain in store. When the United States Warehouse Act was passed many years ago the delivery on Board of Trade contracts was not in question, the operation of the law being to provide a warehouse certificate that could be used as collateral for loans.

While preserving to the operator of the federally licensed house all the privacy of the Act it might be possible for the warehousemen to furnish the data to the Board of Trade or to an organization of their own, the amounts in each house to be kept confidential, and only the totals for the market to be made public. Each warehouseman would benefit by knowing the aggregate, since by deducting his own stock he would know how much the other fellows have, and have a guide as to whether to move his hedged grain into the market or buy in his contracts. Others could compare the total with the open contracts in the delivery month and be guided accordingly.

Buyers must be encouraged. The greater the number of public participants in Board of Trade transactions, the greater the profit for all concerned.

Discounts for Light Weight Wheat

Discounts for all wheat testing less than 58 lbs. to the measured bushel are becoming greater as the flood of shriveled grain swamps the markets. Country shippers know that unless they can refuse most of the light weight wheat and raise the test weight of the balance by cleaning or mixing they will suffer a heavy discount on most of their shipments.

Members of the Northeastern Indiana Shippers Ass'n have been sorely distressed by unexpected discounts on their shipments, so have adopted buying discounts in hope of protecting them from regular losses. They will pay a premium of one cent for wheat weighing more than 58 lbs., but for wheat weighing less they will discount as follows:

57 lb. wheat—.01; 56 lb.—.03; 55 lb.—.05; 54 lb.—.07; 53 lb.—.10; 52 lb.—.14; 51 lb.—.18; 50 lb.—.22; 49 lb.—.27; 48 lb.—.32; 47 lb.—.38; 46 lb.—.44; 45 lb.—.50; 44 lb.—.56; 43 lb.—.62; 42 lb.—.68; 41 lb.—.74, and 40 lb.—.80.

Discounts for moisture range from 14.5% — .01; 15 % —.02; 15.5% — .03; 16%—.04; 16.5%—.05, and 17%—.07.

And even shippers who have bot wheat at these discounts have not been able to market their purchases at a profit, because as the volume of shrivelled wheat in any market increases the demand slackens and the discounts are heavier.

An accurate testing kettle, an efficient cleaner and mixer will pay for themselves in short order.

Some Truckers Getting Merited Punishment

Nowithstanding, country elevator operators are taking advantage of every opportunity to advertise the swindling tactics of traveling truckers, new victims are discovered every week. Last week, Roy Wiggins, claiming residence at Princeton, Missouri, was fined $150.00 and sentenced to thirty days in jail at Indianola, Iowa, for obtaining corn under false pretenses by short weighting farmers who dared to sell the corn. One farmer was short weighted 1,200 pounds before he suspected anything wrong.

W. H. Rachford, claiming residence at

Clarksville, Missouri, had been arrested for issuing two bad checks for $313.00 and $328.00 respectively, to M. C. Rucker of Gladstone, Iowa. After he had paid most of the money due Mr. Rucker, the cases were dismissed.

R. O. Masters, another Missouri trucker, was returned to Hampton, Iowa, on a false check charge, he having given the check to the Farmers Grain Company of Coulter, Iowa, in the amount of $927.35.

By overbidding the market some of these sharpers lure grain owners into selling just another load without looking at what they receive in exchange for the grain. Elevator operators can help to place their farmer patrons on guard against these swindlers by posting all information obtainable regarding their swindling operations on the elevator Bulletin Board.

THE BOX CARS of few railroads are in condition to transport small grain to destination without loss, unless shippers exercise unusual vigilance in inspecting all cars tendered them for loading and refusal to accept any cars which they doubt can be made grain tight. Poor freight business during recent years has effected a material reduction in the box car purchases of the grain carrying railroads. Prevailing prices for grain make it to the direct advantage of every grain shipper to see to it that each car loaded is grain tight, otherwise, his loss of grain in transit may occasionally exceed his expected profit on the shipment. Not only is it all important that grain be prevented from leaking out, but care should be taken to prevent water leaking into box car. A leaky roof has often resulted in shipment arriving at destination in heating condition. Even tho your favorite carrier has been most liberal in the payment of your shortage claims in the past, do not overlook the fact that present day values swell losses rapidly. While one or two hours careful coopering may prevent a loss, it often requires eight or ten months' persistent letter writing to collect for grain after it has been scattered along railroad's right of way.

Organic Dust Harmless

Edward D. Jones brought suit against his employer, the Meridian Grain & Elevator Co., Meridian, Miss., to recover damages, alleging the company's failure to provide him with a safe place to work had caused chronic bronchitis.

Jones worked in the horse feed unit of the plant from January, 1921, to March, 1931, and most of the time was in charge. After he quit he developed chronic bronchitis, diabetes, high blood pressure and hardening of the arteries. The suit was not brought until 4½ years after he quit. He claimed the ailment was caused by breathing dust. He was given judgment against the company by the Circuit Court of Lauderdale County, but the Supreme Court of Mississippi on Sept. 28, 1936, reversed the decision, holding that "the master is only required to furnish a reasonably safe place." Even if not reasonably safe the master is not liable if he has used "reasonable care."

Jones testified there was a great deal of dust, and so did his witnesses, Winslett, Ross, Bullock, and Clay, who had been employed in the plant.

The company called as witnesses Wright, manager of a mixed feed plant at Jackson; Steed, the engineer who designed and sold most of the machinery; Locker, who was engaged in manufacture of cereal products at Memphis; Leonhard, who had 20 years' experience in designing and supervising such plants; Guyton, who had worked in the plant for several years and was engaged in a similar plant at Memphis; Broomfield, who was feed and fertilizer inspector for the state for 7 years; Johnson, fire insurance commissioner and inspector for the rating buro; Sturges, owner of a mixed feed mill at Meridian. All testified that defendant's plant was a standard plant—in all respects properly equipped; that in its operation the generation of dust was unavoidable; but that defendant's plant generated no more dust than other standard plants; all agreed that the history of the operation of such plants showed that the dust generated from the handling of feedstuffs was harmless.

Doctors Stingly, Key and Robinson testified that chronic bronchitis might be caused by the constant breathing of organic dust.

Doctors Cleveland, Wilson, Gully, Bourdeaux, Lewis and Boswell testified that organic dust of the character generated in defendant's plant was harmless to those working in it; that much of it was expelled from the respiratory system by coughing, and that not expelled was absorbed and passed out of the system thru the usual channels; that that, however, was not true of inorganic dust, that it stuck where it landed and caused irritation which might result in chronic bronchitis and other respiratory diseases.

Dr. Boswell, for many years superintendent of the state tuberculosis sanitarium, testified that he had examined thousands of patients for chest diseases and knew that the breathing of organic dust was harmless, while the breathing of inorganic dust was not; that where they were mixed the combination was still harmless unless there was 85 per cent pure silica, inorganic dust. Dr. Boswell for years had operated a mixed feed plant in connection with the sanitarium.

The Supreme Court said: "Appellant had a right to stand on the history of the business, which showed the dust generated by such plants to be harmless. There being no evidence that appellant could have reasonably anticipated harmful effects of the dust, there was no case for the jury. Appellant was entitled to its requested directed verdict."—169 *South. Rep.* 771.

Would Restrain Operation of Elevator

J. B. Craig, Jr., has brought suit against the Moultrie Grain Ass'n to restrain operation of its elevator at Cadwell, Ill., alleging dust, chaff and dirt from the elevator find their way into his dwelling near the elevator.

Justice McLaughlin of the Circuit Court ordered that the Ass'n be restrained from operating its plant without reasonable precautions for the protection of property and property owners; and that after six months he would again hear the suit.

L. D. Seass, pres. of the Ass'n, states that the elevator will be operated, in compliance with the court order.

Mr. Craig owns the other elevator at Cadwell, and is defendant in a suit for ejectment by the C. & E. I. R. R., claiming his elevator still occupies part of the right of way. The Ass'n alleges that Mr. Craig's delay in vacating the right of way has interfered with its plans to build a road and cob burner, as provided in its lease with the railroad company.

Bank Financing Elevator Not Liable to Ticket Holders

J. C. Schleicher, doing business as the Schleicher Elevator, became insolvent and the North Dakota Board of Railroad Commissioners took charge as trustee, there being a shortage of almost 10,000 bus of wheat to meet the outstanding storage tickets.

Schleicher was vice pres. and a director of the Burt State Bank; and when he got into financial difficulties the bank, after consulting counsel, agreed to assist him by having purchase of grain made in the name of the bank, specially binned for the bank, paid for by the bank, and shipped to reimburse it. This arrangement was made after the Tenney Co. ceased to finance him, Nov. 11, 1930, and continued until the elevator was closed Feb. 21, 1931.

The Railroad Commission brot suit against the bank to recover the value of wheat alleged to have been taken by the bank to reimburse itself for paying a $3,000 draft drawn on the Tenney Co. and dishonored. The trial court, however, found that the grain was not taken and the bank was paid in full. After the arrangement with the bank Schleicher did business in his wife's name, and later became cashier of the bank. The arrangement with the bank continued for only ten or eleven days during which time 4 carloads of grain were shipped and the money received from the commission houses was turned over to the bank which had advanced money by cashing tickets given to farmers for grain delivered. After that he made arrangements with other commission houses and there was no reason for the bank to continue to finance him.

The Supreme Court of North Dakota on Dec. 8, 1936, held that the Railroad Commission had not proved its title to this grain, and affirmed the decision by the Hettinger County District Court against the Commission.—270 *N. W. Rep.* 91.

True Service

Service is something more than attention, something more than earnestness, something more than salesmanship. It is likewise much more than the sum total of the three. It is thoughtful, kindly human—and not a mere impulse to automatic action. It depends not alone on courtesy and consideration of individual requirements, but rather on a pleasant anticipation of personal wants and desires. It means far more than routine activity; it means feeling, sincerity, initiative—the giving of something which cannot be purchased. This, alone is service.—Arthur W. Ingalls.

Asked—Answered

[Readers who fail to find trade information desired should send query for free publication here. The experience of your brother dealers is worth consulting. Replies to queries are solicited.]

Distance of Cob Burner from Elevator

Grain & Feed Journals: From the insurance standpoint how far away from the elevator should the cob burner be built? Does an intervening brick wall between the cob burner and the elevator reduce the fire hazard and earn a lower insurance rate?—Andrews Elevator, Andrews, Ind.

Ans.: Cob burners are required by the rules of the mutual grain fire insurance companies to be located with at least 40 feet of clear space between burner and combustible buildings.

No reduction in the insurance rate is given for a brick wall between cob burner and elevator, but if wall is built high enough the burner may be nearer than 40 feet to the elevator.

Laws Governing Future Trading?

Grain & Feed Journals: I would like to obtain a copy of the laws governing the buying and selling of grain futures thru brokers on the Chicago Board of Trade.—D. I. Taylor, Big Lake, Tex.

Ans.: Buying and selling on the Board of Trade is controlled by the rules of the Exchange, not by state laws, which simply cover the relations of principal and agent.

When the course of dealing between customer and broker indicates an intention to deliver the transactions are binding on both parties; but in one of the Southern states trading in grain futures on the Boards of Trade is outlawed.

The trading rules of the exchanges must conform to the Commodity Exchange Act as published on pages 457 and 458 of the Grain Dealers Journal, June 10, 1936, and now in force; and by the regulations thereunder recently issued and published on pages 76 and 85 of the July 28 number.

Total wheat stocks held by mills June 30 were 67,874,468 bus., against 62,641,636 bus. June 30, 1936, as reported by the Buro of the Census.

Coming Conventions

Trade conventions are always worth while, as they afford live, progressive grain dealers a chance to meet other merchants from the same industry. You can not afford to pass up these opportunities to cultivate friendly relations and profit by the experience and study of others.

Aug. 19, 20. New York State Hay & Grain Dealers Ass'n, DeWitt-Clinton Hotel, Albany, N. Y.

Sept. 2, 3. Mineral Feed Manufacturers Ass'n, Medinah Club, Chicago, Ill.

Sept. 8, 9. Michigan Bean Shippers Ass'n, Hotel Fort Shelby, Detroit, Mich.

Sept. 9, 10. Mutual Millers & Feed Dealers Ass'n, Jamestown, N. Y.

Sept. 13, 14. Independent Feed Dealers' Ass'n of Iowa, Inc., Des Moines, Ia.

Oct. 6. Ohio Grain, Mill & Feed Dealers Ass'n's fall meeting, Norvel Hotel, Lima, O.

Oct. 11, 12. Grain & Feed Dealers National Ass'n, Dallas, Tex.

Feb. 16, 17, 18. Farmers Elevator Ass'n of Minnesota, Minneapolis, Minn.

Feb. 22. Pacific Northwest Feed Ass'n, Seattle, Wash.

Feb. 22, 23. Farmers Grain Dealers Ass'n of Ohio, Toledo, O.

March 27, 28, 29, 30, Society of Grain Elevator Superintendents of North America, Kansas City, Mo.

May 9, 10. Illinois Grain Dealers Ass'n, Danville, Ill.

Planned for the National Convention

St. Louis, Mo.—Plans are nearing completion for the 41st annual convention of the Grain and Feed Dealers National Association, to be held Oct. 11-12 at Dallas, Texas. Some of the speakers who have been invited to take part have not been able to say as yet if they can attend, but the program will be definite by Sept. 1.

Secretary of Agriculture Wallace will, it is hoped, be on the Dallas program. Secretary Wallace is not able to make a definite speaking engagement that far ahead, but an invitation to him will be sent again in early September.

It is planned to have Dr. J. W. T. Duvel, administrator of the CEA, on a special program where commodity exchange regulations will be discussed, and to have Dr. Edward Parker of the grain standards division on another special program dealing with inspections and grain standards.

The federal and Texas grain standards officials will cooperate in a grain grading school to be held in Dallas on October 10 as a preliminary to the convention.

Frank A. Theis of Kansas City, Mo., one of the nation's leading authorities on wheat marketing, will be a headline speaker on the legislation program. Mr. Theis, a former official in AAA, will discuss legislation in force and impending at convention time.

Edgar Markham of Washington, D. C., executive secretary of the National Grain Trade Council, will appear on one of the special programs. It is planned now to have the National Grain Trade Council meet at Dallas in its regular annual meeting. This meeting is set for Sept. 15, but directors of the Council have been requested to postpone the meeting date to October 11 or 12 in order to save an extra trip for their officers, and in order to increase interest in the National program.

L. W. Baldwin, chief executive officer of the Missouri Pacific Lines, will be a speaker on the special program dealing with competition from truckers and peddlers. Mr. Baldwin is rated as one of the most forceful and interesting speakers among railway officials.

Secretaries and other officials of grain and feed trade associations will have a special and important series of meetings at Dallas. With almost every grain and feed trade association of the nation now affiliated with the National Association, their discussion of association matters should draw a large attendance from convention visitors, many of whom will be officials of associations. Floyd Oles of Seattle, Wash., J. F. Moyer of Dodge City, Kas., and other prominent association men are expected to take part in the discussions. It is believed from responses obtained to date, that this will be the largest group of grain and feed trade association officials ever to meet at one time.

S. W. Wilder, president of the National Ass'n for his second term, will make the keynote address at the opening of the convention on Monday morning.

Dallas hosts promise "entertainment commensurate with the talent that is available at the Dallas and Fort Worth expositions this year." They plan on a novel and elaborate banquet program. There will be the usual annual golf tournament; a stag party on Monday, the usual entertainment for women visitors, and lots of chances to take in the big expositions at Dallas and Fort Worth.

How Roads Handled Southwest Wheat Rush

How the carriers handled the wheat crop of the Southwest this year with the minimum delay and congestion is a story of preparedness.

Southwestern railroads started the season with approximately 40,000 cars in storage.

This year it was decided eastern and southeastern railroads were to send into home (western) territory definite quantities of western box cars, above the number returned in the regular course of business.

A goal of 20,000 cars within a two-month period beginning May 1 was set. The flow of box cars homeward began, and by July 1 there were exactly 20,050 more western cars in home territory than on May 1.

However, to accomplish this rather remarkable transportation feat, the Car Service Division went further. Ordinarily foreign cars may be loaded by a road to the owner, but this year the Division required that all cars belonging to certain specified grain-hauling roads must be forwarded to the home line empty. This is the first time such drastic action has been taken, and, according to Division officials, the performance proved satisfactory.

It later became necessary for the Division to arbitrarily divert cars at the Chicago and St. Louis terminals to western roads which were badly in need of them. About 5,000 additional cars were thus made available.

On Kansas City, Omaha, and St. Louis, and such intermediate markets as Enid, Salina, Hutchinson, Wichita, Amarillo, and Fort Worth, converged grain-filled box cars, taxed these cities' railroad yards to capacity. On July 10, for example, Kansas City received 1,956 cars containing more than 3,000,000 bus. of wheat, an all-time high for one day. The former record of 1,487 cars was set on July 11, 1931. The week ending July 10 was also the greatest in the history of the market, the total for the five-day period being 9,009 cars, which represented more than 14,000,000 bus. Total July wheat receipts at Kansas City were 48,065,600 bus.

According to the National Industrial Conference Board, state sales taxes collected during the fiscal year 1936 aggregated $352,000,000, and gasoline taxes collected during the same year aggregated $652,000,000. The taxpayers soon will give all their earnings to the tax eaters.

W. B. Johnston Dead

W. B. Johnston died July 24 at his home in Enid, Okla. after a brief illness.

A native of Pennsylvania where he was born in 1867 Mr. Johnston settled in Enid in 1893, operating the Big Four elevator there in 1898. In 1905 he built another elevator there and a year ago on the same site completed an up-to-date concrete elevator of 75,000 bus. capacity. He operated elevators at Alva, Cloworth, Fairview, Kingfisher, Lahoma, Longdale and Lookeba, Okla., and at Cuyler, Gaylord and McKibben, Tex.

Mr. Johnston was highly esteemed by numerous friends in the trade. He has long been active in the work of the Oklahoma Grain Dealers Ass'n, and had been a director of the Grain and Feed Dealers National Ass'n.

W. B. Johnston, Enid, Okla., Deceased

Washington News

The House agriculture com'ite on Aug. 7 approved the wheat crop insurance bill.

The Wheeler-Lea bill expanding the power of the Federal Trade Commission, which has been passed in the Senate, is now being pushed in the House by the administration.

Washington, D. C.—Passed by the Senate as a rider to the District of Columbia appropriation bill, the Tydings-Miller retail price maintenance bill is expected to be vetoed by the President.

Pensions up to $120 per month are provided in the Railroad Retirement Act, passed by Congress, financed by equal taxes on employers and employed. The tax will increase gradually to 7½ per cent by 1949.

The administration is opposing legislation for commodity loans on corn and cotton unless the burocracy is given control over production. Farmers of U. S. A. will not enjoy regimentation by the swivel chair artists.

The McCarran train length bill passed by the Senate is denounced by the Illinois Manufacturers Ass'n as imposing an additional burden of $237,000,000 on the railroads and greatly increase the cost of transportation.

The House labor com'ite has approved amendments to the Black-Connery wage and hour bill depriving the administrative board to be appointed of any power to act where organized labor has effected a bargaining agreement. Under the original act organized and unorganized labor would have looked to the burocracy for aid, making membership in labor unions unnecessary. The board has power to fix minimum wages at 40 cents an hour or less and minimum hours at 40 or more per week.

Germany Decrees Grain Economies

Germany on July 27 requisitioned the entire new rye and wheat crops.

Wheat and rye prices per ton have been fixed by seasons as follows:

Wheat—Aug. 10 to Oct. 31, 194 marks a ton; November, 196; December, 199; January, February, March, 201; April to August, 200.

Rye—July to October, 185 marks a ton; October, 187; November, 189; December to April, 191; April, 190; May, 188; June, 185. The mark now is quoted at 40¼ cents.

Drastic regulations prohibit use of breadgrains for feeding livestock, and prohibit distillation of any grain, including wheat, barley, oats and maize.

The decree also provides that every grain merchant must offer to the military authorities 10% of his monthly purchases of rye from July to September, 15% from October to December, and 20% from January to March. German millers are required to adulterate wheat flour with 7% corn flour; rye flour with 4% corn flour, and, after October, 3% of potato flour.

Severe penalties await the German citizen who disobeys the decree.

Involved official estimates place the holdings of grain by farmers, mills and grain dealers at 720,000 tons of rye, and 408,000 tons of wheat, an amount believed sufficient to last until harvest.

Wheat ground by Canadian mills during the 11 months prior to July 1 amounted to 59,644,391 bus., against 61,780,265 during the corresponding months of the preceding crop year, as reported by the Dominion Buro of Statistics. Cereal production for June, 1937, was as follows with figures for the same month last year in brackets and the quantities in pounds: oatmeal, 401,239 (577,358); rolled oats, 7,382,593 (10,342,912); corn flour and meal, 1,902,675 (2,398,522); pot and pearl barley, 90,752 (232,447); buckwheat flour, 58,258 (86,754); flour, 1,000,879 (1,148,810) bbls.

Joe Henebry Passes On

Countless friends and the grain trade of Illinois are grieved to learn of the passing of J. A. Henebry, 58, manager of the Plainfield Grain Co., Plainfield, Ill., for the last quarter century, and a popular and familiar figure in the affairs of the Illinois Farmers Elevator Ass'n, to the directorate of which he has been repeatedly re-elected to represent his district.

Mr. Henebry was injured fatally in an auto accident on the Lincoln highway two miles north of Joliet on Aug. 2, and passed away in St. Joseph's hospital, Joliet, soon after the accident. Burial was at Bement, Ill., boyhood home of Mr. Henebry.

Last spring the Plainfield Grain Co. celebrated Joe Henebry's 25th anniversary as manager. An experienced manager with several years of intensive training in elevators thru central Illinois, then serving the Farmers Square Deal Grain Co. at Morris, Ill., the officers of the newly organized Plainfield Grain Co. prevailed upon Mr. Henebry to take charge, and he assumed his new duties in August, 1912.

Mr. Henebry almost immediately started a program of expansion that in succeeding years brought the company the elevators at Plainfield, Normantown, Wolf's Crossing, Caton Farm, and Frontenac, lumber yards at most of these points, coal yards, feed mills, and farm supply units.

Early recognizing and understanding the part played by the futures market in safeguarding purchases of cash grain from market declines, Mr. Henebry became a member of the Chicago Board of Trade in 1915, and utilized his membership judiciously. Five years later his company built its 100,000 bu. reinforced concrete elevator at Plainfield, central point of the company's operations.

Always progressive, Mr. Henebry worked with his directors and with his staff of employes to promote the welfare of the organization. Of a helpful disposition, always ready to lend a helping hand, he was rewarded with an unusual degree of loyalty from all with whom he worked.

Mr. Henebry was a successful business man. Yet, among his accomplishments, he was most proud of his part in the training of young men, who left his organization to become successful managers for other elevator companies, young fellows whom he had taught to play the game strictly according to the rules, most of whom turned out to be "square shooters, like Joe."

J. A. Henebry, Plainfield, Ill., Deceased

From Abroad

July rainfall in Northern Argentina was negligible and the drought area is extending southward, according to a cable received Aug. 4.

Rome, Italy—Premier Benito Mussolini's grain commission reported on June 12 that Italy's wheat crop would be larger this year than last. Farmers' selling prices were fixed at $6.47 per quintal (about $1.79½ per bu.) for soft wheat; $7.36 per quintal (about $2.01 per bu.) for hard.

China has fixed prices on the Shanghai grain exchange as follows: Maximum for wheat for July delivery, 92 cents per bushel; for August delivery, 96 cents; for September delivery, 99 cents; for October delivery, $1.01; for November delivery, $1.02. Under the new regulations traders on the Shanghai exchanges are not permitted to accept accounts for persons other than millers and recognized grain dealers.

Liverpool, Eng.—An agreement among British millers to buy wheat from this country only on the basis of sealed samples, entered in 1931, appears to have broken down with the withdrawal of eight firms in the Merseyside area. Scarcity of Canadian wheat, and belief that the U. S. federal grain inspection system has improved to a point making sealed samples unnecessary, contribute to a willingness to accept U. S. wheat "Certificate Final Terms."

The first estimate of the Central Council of the French Wheat Board places the 1937 wheat crop at 263,000,000 bushels, which is less than had been expected. Purchases of the 1937 crop by co-operatives are to be made at the rate of 150 francs per quintal ($1.52 per bushel at current rate of exchange), less administrative expenses where the producer or holder offers less than 50 quintals. Where producers or holders offer more than 50 quintals, the co-operatives are required to pay 150 francs per quintal for the first 50 quintals and 100 francs ($1.02 per bushel) for the remainder. Grain dealers also may buy such wheat, with the reservation that they pay into the Regional Agricultural Credit Bank a sum of 150 francs per quintal, which is to be turned over to sellers under the usual conditions. The sum paid in by the grain dealer will have added to it a guarantee (to cover any higher price later in the season) yet to be fixed. It is thus apparent that the 1937 fixed price will be more than 150 francs per quintal.

Driveway Observations

BY TRAVELER

The temptation to gamble runs strong in the heart of many an elevator operator who would not think of buying one job or two jobs or more of wheat on a Board of Trade, because doing so would be outright speculation. But holding cash wheat is another proposition. Especially if the market looks like it is going up. Can't hardly call it gambling if a fellow has the wheat.

The latter theory has wiped out many a thin margin on which wheat purchases have been made in the current harvest. Elevator men who sold as fast as they purchased during the peak of the wheat movement in the middlewestern, soft wheat belt, saved their margins. But those who held their purchases during July's down market, waiting for expected improvements in prices, learned again the hazards of ownership, whether they hold the cash commodity or have bot options.

Letters from the Trade

[The grain dealers' forum for the discussion of grain trade problems, practices and needed reforms or improvements. When you have anything to say of interest to members of the grain trade, send it to the Journals for publication.]

Signals for Drivers of Long Trucks and Trailers

Grain & Feed Journals: We use a little device in connection with our platform scale that we think is worth passing on to your readers. We have arranged a signal bell which is rung by the person doing the weighing as soon as he has found the weight. This bell is operated by two dry cells and the push button should be placed where a customer will not lean against it. We have our push button underneath the ledge on which the scale book rests. The bell is affixed to the outside of the office and can be plainly heard by the person being weighed whether he can see the weigher or not.

Many of our grists come in on trailers, hooked behind cars, the driver of which is out of sight of the weigher. This does away with our having to step to the door and signal or call to the driver of the car. It is a real time-saver when one is weighing many loads in rapid succession. We are sure that anyone who uses this device will be enthusiastic about it.—L. W. Colton, Mgr., Kirkland, Ill.

"Unknown" Causes of Elevator Fires

Grain & Feed Journals: There is always interest found in what an adjuster thinks of a fire loss. It's very easy and convenient to be casual about disturbing matters that we do not understand. Things happen that put us to no end of trouble and for the moment are downright disastrous, but often an attitude of annoyed indifference forces forgetfulness till such a time as we are again confronted with the same sad circumstance. Then and there we may elect to go on remaining casual or by far better, spend the effort required to find the why and the wherefore.

Having just returned from adjusting a couple of fire losses on grain-handling plants where the cause had to be set down as "unknown," speculations as to the real facts of the cases, cross and recross my mind. While losses, especially unexplainable ones are distressing to underwriters, they are usually immeasurably more so to plant owners and operators who are dependent upon the use of that property right now for their profits and livelihood. So we're both perplexed, both inconvenienced, and both out of pocket.

It would be very sporting to take these troubles with our chin up and forget it, but making a living and the preservation of property and trade just is not a sporting proposition. So it seems, that the thing to do to avoid further unexplainable embarrassment of this nature, is for the property owner and the insurance companies just to sit in a little closer on matters that concern the property in which both have a common interest. Let's try to arrive at some system whereby the unexplained fire is almost an impossibility.

And how can it be done? Let's take a cue from an old detective method, or the "process of elimination." For example, remembering again the recently distressed elevator owners it couldn't be a spark from an outside source if the building was ironclad and all windowlights were in; it couldn't be lightning if there was proper lightning protection; it couldn't be the chimney if it were properly built and carefully watched; it couldn't be from dust if there was no dust, any more than a Texas school building could have blown up had there been no gas. And so we could go on with our possibilities with an answer for each till the eventualities bring us to our only possible conclusions.

To simplify the problem make these eliminations of possible troublemakers before the fire loss rather than after, because the ones done away with before, do not stand in our way in the solving of our mystery. In the same way, the "watched" criminal and a complete set of records on possible mischief-makers, make the job of the good detective one of few possible conclusions.

Well, such are the mind wanderings of one who has just wrestled with the unknown. May the day come when the unexplainable fire will be so unusual that it attracts the attention and investigation of everyone, rather than the accepted matter-of-course affair that it now is.—Lynn E. Wiren, Adjuster Grain Dealers National Mutual Fire Insurance Co., Omaha, Nebr.

Dakota to Buy Up Feed Wheat

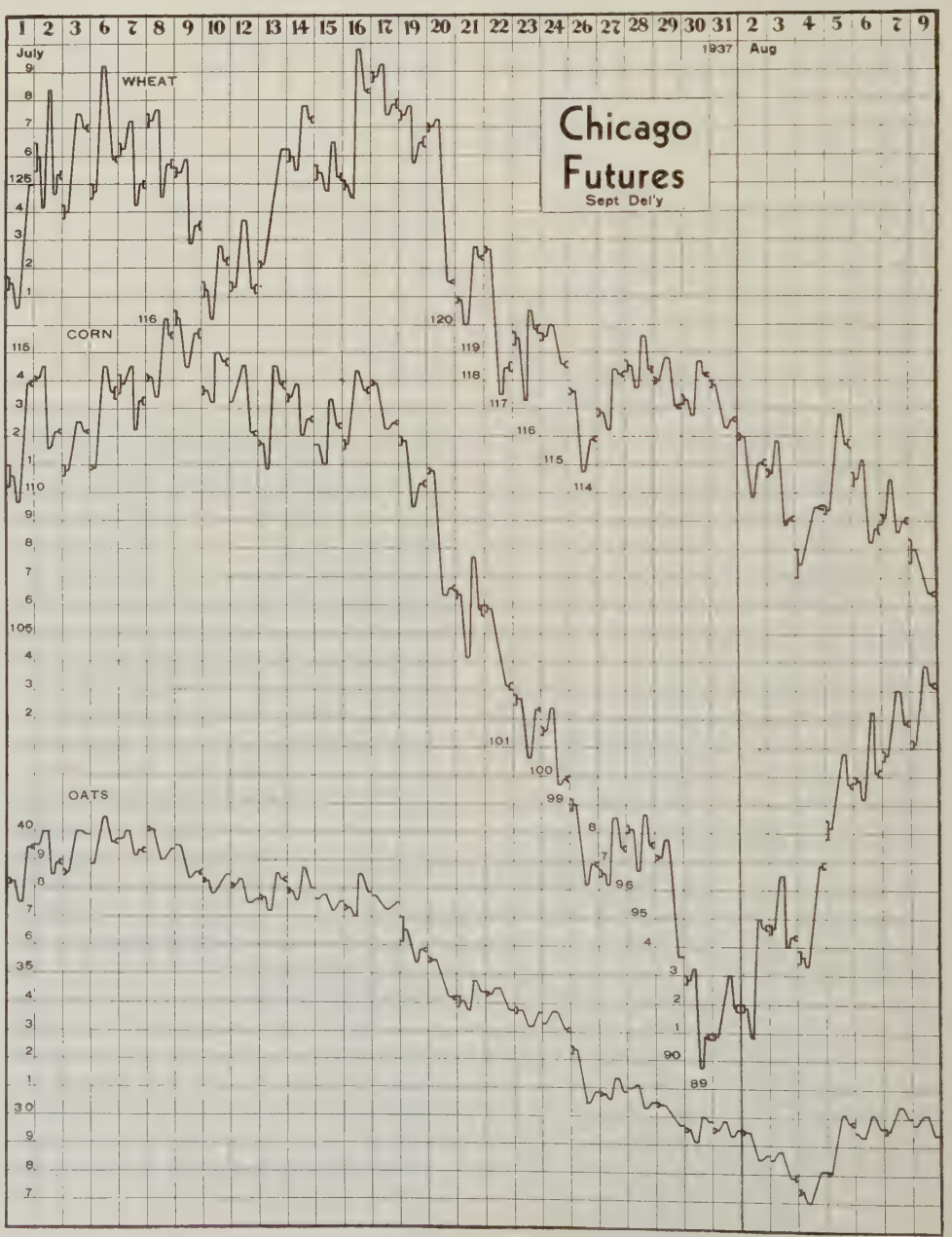
Governor Langer of North Dakota, as chairman of the State Industrial Commission, operating the state-owned mill and elevator at Grand Forks, announced Aug. 2 that the state mill would buy light weight wheat grown in the state at prices higher than those on the leading markets.

On account of black rust in many localities preventing the wheat berry from filling the crop this year contains a large percentage of the light weight wheat, most of the North Dakota crop weighing less than 52 pounds per bushel. The terminal markets are surfeited with the shrunken grain and the price has suffered.

If sold for feed the light wheat must compete with oats selling at 27 cents at Minneapolis.

The governor states that light weight wheat dropped from 89 cents July 22 to 30 cents four days later.

Kansas City, Mo., Aug. 2.—Barge shipments of 48,000 bus. of wheat Saturday, believed to be destined for Chicago, were reported by the secretary's office of the Board of Trade, bringing the total loaded in the last two weeks to approximately 160,000 bus. Reports indicated elevators had only a small amount of wheat remaining to be shipped via river barges, unless more grain is purchased later.



Grain Movement

Reports on the movement of grain from farm to country elevator and movement from interior points are always welcome.

Ft. Worth, Tex., Aug. 3.—Ft. Worth yesterday had its first car of shelled corn from the new Texas crop. It graded No. 4 white, 13.2% moisture and 49 lbs.

Ft. Worth, Tex., Aug. 2.—First cars of new crop snap corn were received here last week from southern Texas, but the quality was reported as rather disappointing.

Chicago, Ill.—The first shipment of corn from Jugoslavia to Chicago was unloaded here July 27. It consisted of 100,000 bus., and the boat contained also 95,000 bus. Argentine corn.

Washington, Ind.—John L. Morgan, Green County farmer, this year harvested 12,400 bus. of wheat from a 400-acre field and sold the entire crop at Chicago for $1.20 per bu.—W. B. C.

Chicago, Ill., July 28.—Chicago yesterday received 95,000 bus. Argentine and 100,000 bus. Jugo-Slavian corn from Montreal. Lake shipments included 254,000 bus. wheat to Buffalo and 180,000 to Montreal.

Ft. William, Ont., July 28.—The first car of new crop rye was shipped today from Letellier, Man., to the United Grain Growers Elvtr., Ft. William. The yield is reported as 30 bus. to the acre and the grade good.

Chicago, Ill., Aug. 6.—In the last few days more than 800,000 bus. of grain have cleared from Chicago by steamship for export by way of Canadian ports, included in the shipments being 267,000 bus. of wheat, 268,000 bus. of rye and 298,000 bus. of oats.

Duluth, Minn.—Receipts of wheat at Duluth for the crop year 1936-37 have been as follows: Spring wheat 6,511,053 bus., durum 1,652,,302 winter 2,799,942, white 347,594, making a total of 11,310,891 bus.—F. G. C.

Kennewick, Wash., July 27.—First load of new wheat of the 1937 season brot to the Kennewick Flour Mill was No. 1 quality, and brot $1 a bu. at the mill. The wheat crop thruout the entire district is exceptionally good, averaging about 20 bus. an acre.—F. K. H.

Winnipeg, Man., Aug. 6.—First cars of new crop wheat from Manitoba passed thru Winnipeg yesterday en route to Fort William. A car of No. 1 northern originated at High Bluff in the Portage district and one from Morris in the Winnipeg area was durum.

Winnipeg, Man., Aug. 4.—Total deliveries 1936-37 wheat crop at country points, 165,426,000 bus.; allowance for seed, feed and country mills, 45,000,000 bus.; estimated by country elevator agents in farmers' hands to market, 5,410,000 bus.; total 215,836,000 bus.—J. G. Fraser, manager North-West Grain Dealers Ass'n.

Minneapolis, Minn., Aug. 7.—The total domestic marketings of flax during July, 1937, were only 75,000 bus., bringing the season's total (from Aug. 1, 1936, to Aug. 1, 1937) to 4,600,000 bus., which is equal to 78% of the government's final estimate last year. Harvesting of new crop seed has been under way in the southern districts for a week or ten days, and next week we should see the first arrivals at Minneapolis. —Archer-Daniels-Midland Co.

Ottawa, Ont., Aug. 6.—Canadian wheat in store for the week ending July 30, 1937, was reported as 33,285,281 bus. compared with 35,196,133 bus. for the previous week and 120,770,919 bus. for the week ending July 31, 1936. Wheat marketings in the Prairie Provinces for the week ending July 23, 1937, amounted to 704,700 bus., a decrease of 160,040 bus. from the previous week when 864,740 bus. were marketed. During the corresponding week a year ago the receipts were 483,167 bus.—R. H. Coats, Dominion Statistician.

Wichita, Kan., Aug. 7.—If foreign countries are confident they are going to be able to secure a large surplus of wheat from U. S. this year, based on government reports they will have a sad awakening. It is the most confused condition we have ever had in this country. The reports will prove to be a hollow boast, as will be realized as we process it into flour. Our central states have never had this experience before, as light test, damaged red wheat just does not make the flour, and while figures will show the bushels were raised, we will not be far off a domestic basis on flour production in U. S. this year. Light test spring wheat has a much better flour production than soft red wheat. The flour buyer that gets his quality flour bot up from quality wheat this year will be in luck, as high quality wheat is now selling around 15c over the K. C. Sept. basis Kansas City, while off grade red is selling over 25c under the K. C. Sept. in poorer grade and we expect very high premiums for quality wheat this year. Baking results are just not in the offgrade wheat. A large volume of wheat from here east is being turned down as the buyers will not buy it as wheat.—Smith-McLinden Grain Co.

Corn Movement in July

Receipts and shipments of corn at the various markets during July, compared with July, 1936, in bushels, were:

	Receipts 1937	Receipts 1936	Shipments 1937	Shipments 1936
Baltimore	822,113	102,578	......	......
Boston	*924,625	......	......	......
Chicago	7,265,000	5,942,000	2,279,000	4,124,000
Duluth	1,275,223	485,189	956,037	800,778
Ft. William	......	......	2,216	......
Ft. Worth	37,500	84,000	21,000	31,500
Hutchinson	......	1,500	......	......
Indianapolis	358,000	2,185,000	339,000	1,983,000
Kansas City	276,000	1,633,500	117,000	904,500
Milwaukee	46,500	686,260	46,800	305,400
Minneapolis	286,550	953,780	110,060	620,000
Omaha	247,800	1,178,800	141,965	1,103,994
Peoria	978,600	1,542,300	271,600	564,400
Philadelphia	636,125	57,654	......	......
St. Joseph	43,500	216,000	6,000	175,500
San Francisco	11,428	5,714	......	......
Superior	1,224,249	252,898	949,571	554,231
Toledo	234,385	225,000	228,025	143,800
Wichita	3,900	3,900	......	......

*Argentine.

Wheat Movement in July

Receipts and shipments of wheat at the various markets during July, compared with July, 1936, in bushels, were:

	Receipts 1937	Receipts 1936	Shipments 1937	Shipments 1936
Baltimore	1,088,399	1,081,810	48,000	......
Boston	......	......	......	41,371
Chicago	13,396,000	10,202,000	3,585,000	3,447,000
Duluth	599,622	5,293,291	755,738	1,977,234
Ft. Wm.	5,045,474	10,807,347	5,397,319	17,787,834
Ft. Worth	9,444,400	2,871,400	1,708,000	382,200
Hutchinson	8,261,400	7,173,600	......	......
Ind'n'polis	2,005,000	2,345,000	456,000	477,000
Kan. City	48,065,600	30,257,600	9,217,850	6,152,015
Milwaukee	3,762,220	1,797,180	697,355	1,157,129
Minneapolis	5,719,660	7,450,350	1,108,630	1,574,790
Omaha	11,685,841	12,573,627	2,485,318	4,772,881
Peoria	637,400	995,700	570,000	1,099,600
Philadelphia	1,058,791	496,989	104,000	......
St. Joseph	8,388,800	5,180,000	1,668,800	2,728,000
San Fran.	132,500	107,500	......	......
Superior	200,760	3,634,584	669,119	1,099,585
Toledo	2,793,000	5,084,800	28,615	70,065
Wichita	9,952,500	5.740,500	5,437,500	2,482,500

Oats Movement in July

Receipts and shipments of oats at the various markets during July, compared with July, 1936, in bushels, were:

	Receipts 1937	Receipts 1936	Shipments 1937	Shipments 1936
Baltimore	66,638	47,479	......	......
Boston	26,700	18,860	......	......
Chicago	3,813,000	5,223,000	4,401	438,382
Duluth	1,700	179,010	1,860,000	1,025,000
Ft. William	927,155	2,317,597	798,024	1,697,188
Ft. Worth	268,000	226,000	14,000	4,000
Indianapolis	804,000	956,000	670,000	456,000
Kansas City	396,000	620,000	66,000	190,000
Milwaukee	45,200	140,120	20,900	112,100
Minneapolis	824,010	6,331,600	561,320	888,040
Omaha	628,000	1,680,000	151,176	780,693
Peoria	492,000	432,000	532,000	264,000
Philadelphia	20,750	39,552	......	......
St. Joseph	304,000	484,000	42,000	76,000
San Francisco	20,666	10,333	......	......
Superior	16,399	313,382	4,733	174,925
Toledo	191,100	530,950	163,330	203,725
Wichita	16,500	42,000	7,500	16,500

Rye Movement in July

Receipts and shipments of rye at the various markets during July, compared with July, 1936, in bushels, were:

	Receipts 1937	Receipts 1936	Shipments 1937	Shipments 1936
Baltimore	52,749	108,431	......	......
Boston	......	1,150	......	......
Chicago	432,000	1,099,000	438,000	416,000
Duluth	6,545	52,750	86,338	3[illegible]2,214
Ft. William	147,299	283,756	109,705	582,271
Ft. Worth	3,000	......	......	......
Hutchinson	1,500	......	......	......
Indianapolis	27,000	60,000	21,000	43,500
Kansas City	28,500	13,500	1,500	7,500
Milwaukee	73,580	45,280	24,005	20,080
Minneapolis	570,080	530,060	263,620	373,150
Omaha	177,800	43,400	135,800	38,643
Peoria	28,800	154,800	22,800	14,600
Philadelphia	......	4,718	......	......
St. Joseph	16,500	6,000	1,500	4,500
Superior	6,704	50,945	2,672	307,500
Toledo	4,200	111,275	11,600	1,500
Wichita	......	1,300	......	1,300

Barley Movement in July

Receipts and shipments of barley at the various markets during July, compared with July, 1936, in bushels, were:

	Receipts 1937	Receipts 1936	Shipments 1937	Shipments 1936
Baltimore	4,853	19,492	......	......
Chicago	107,000	954,000	292,000	324,000
Duluth	111,012	1,025,452	421,069	635,628
Ft. William	281,593	1,201,279	1,091,313	1,360,103
Ft. Worth	4,800	20,800	......	......
Hutchinson	1,600	......	......	......
Indianapolis	3,000	3,000	......	......
Kansas City	67,200	120,000	6,400	68,800
Milwaukee	106,640	984,078	234,500	595,875
Minneapolis	818,370	3,756,650	874,650	2,530,010
Omaha	88,000	152,000	53,031	354,591
Peoria	183,400	322,600	145,600	138,000
Philadelphia	1,931	2,000	......	....
St. Joseph	21,000	14,000	3,500	21,000
San Fran.	1,271,375	877,125	......	305,083
Superior	42,987	538,511	136,913	494,308
Toledo	......	75,985	......	49,660
Wichita	2,600			

Daily Closing Prices

The daily closing prices for wheat, corn, oats, rye, barley and soybeans for September delivery at the following markets for the past 2 weeks have been as follows:

	Option High	Option Low	July 28	July 29	July 30	July 31	Aug. 2	Aug. 3	Aug. 4	Aug. 5	Aug. 6	Aug. 7	Aug. 9	Aug. 10
Wheat														
Chicago	129¾	105	118⅜	117	118⅛	116½	115	113	113⅜	115⅝	112⅝	112⅞	110⅜	113⅝
Winnipeg*	147	104⅛	132¼	131¾	132⅞	132	....	127⅛	126	128	125	125	122⅝	127⅝
Liverpool	....	....	137⅝	136⅞	137½	137⅛	....	133⅞	129⅞	130¾	129⅛	127¾	127⅛	128¾
Kansas City	125⅜	101¼	114½	113⅛	113⅝	111⅜	108⅞	107⅝	107⅛	108⅞	105⅜	105⅝	103⅜	107⅛
Minneapolis	44⅞	109½	131⅞	130½	130⅞	128¾	126½	125⅛	124⅞	127⅜	125⅛	125	122⅛	125¾
Duluth	129¼	101	115½	114½	114½	113½	111⅝	110⅛	110⅛	111⅝	108⅞	108	104½	108
Milwaukee	129¾	105¼	118½	117⅛	118⅛	116⅝	115¼	112⅞	113⅜	115⅞	112¾	113	110⅜	....
Corn														
Chicago	116½	89¾	97½	93⅝	90⅞	91¾	94⅝	94¼	96⅞	99⅝	100	101⅞	103⅛	101
Kansas City	119¼	84⅞	92⅞	88⅞	85⅜	86⅛	88¼	88¼	90⅝	94⅝	94¼	95½	96⅝	92⅞
Milwaukee	116½	89⅞	97⅝	93¾	91	92	94¾	94⅜	97	99¾	100⅛	101⅞	103¼	....
Oats														
Chicago	47½	27	30½	29¾	29⅞	29½	28⅝	27⅞	28⅛	29¾	29⅝	30	29⅜	29¼
Winnipeg*	58½	41	48⅜	47¾	47⅞	47½	....	45	44⅜	48⅛	46⅜	47⅜	47	48⅛
Minneapolis	39	26	29	28	28⅛	27¾	26⅞	26⅜	26⅜	27¾	27⅝	28	27⅝	27⅛
Milwaukee	47⅛	27¼	30½	29¾	29⅞	29⅝	28¾	28	28⅛	29⅞	29⅝	30	29½	....
Rye														
Chicago	103½	73¾	82⅞	81¾	81⅝	80¼	78¼	77⅞	77⅞	81¼	81⅞	82½	81⅛	....
Minneapolis	100	70⅞	78¾	78½	78⅜	76½	75	74¼	74⅛	77⅛	77⅞	78⅛	77½	78¼
Winnipeg*	108½	75⅞	93⅝	93¾	94	92¾	....	87¾	85⅞	90⅞	89½	90	88½	92⅝
Duluth	88	72	79¼	79¼	78½	78¼	76½	77½	76	79	80	80	80	81
Barley														
Minneapolis	59⅛	49	53	53⅛	54¼	52⅞	53⅜	52½	52¼	53¼	52½	51¾	49	51
Winnipeg*	75¼	51	65	64½	64½	62⅞	....	59¼	60½	62¾	60¼	60¾	60¼	61¼
Soybeans														
Chicago*	133	96¼	105	104½	103¾	103⅛	101	98¼	96¼	100¼	99	100	100¼	100

*October delivery.

Crop Reports

Reports on the acreage, condition and yield of grain and field seeds are always welcome.

Chipley, Fla., Aug. 4.—Crops good this year. —J. J. Daring.

Columbus, N. D., July 25.—The crop is almost a total failure around Columbus.—F. W. Moore.

Lahoma, Okla., Aug. 3.—Plowing for wheat pretty well done. Wheat yield a little above average.—Farmers Elvtr. Co.

Marengo, Ia., Aug. 5.—The highest yield of the new crop oats in this vicinity so far reported was 94 bus. per acre.

Walters, Okla., Aug. 7.—Very dry here at present. Corn in this county burned up. Feed crop very short.—D. F. Wegener Grain Co.

Petersburg, Ind.—Wheat threshing has been finished and the mean average for Pike county will be from 16 to 17 bus. to the acre.—W. B. C.

Sulphur Springs, Ia., July 31.—Threshing is in full swing. Oat yield 50 to 100 bus. per acre; quality fair. Barley very spotted in quality, yield fair.—Hansen Grain & Coal Co., P. F. Brown, mgr.

Columbia City, Ind., Aug. 3.—Wheat is poor in this section, little being available suitable for milling. Most of it tests between 50 and 55 lbs. to the bu.—E. J. Metz, The Farmers Mill & Elevator, Inc.

Jasper, Ind.—Wheat yields in Dubois county haye ranged from 11 to 40 bus. per acre, with many farmers averaging 35 bus. to the acre, according to C. A. Nicholson, county agent. The wheat is of extra fine quality.—W. B. C.

Sloan, Ind.—W. W. Crane, elevator man here, says the wheat that has been coming to the elevator weighs out on an average 49 to 59 lbs. to the bu. The oats yield in this section is averaging 50 to 60 bus. to the acre.—W. B. C.

Olney, Ill.—Everett Miller, who resides three miles west of Dundas, has sold 146 bus. of red top seed to the Olney Seed Co., which had been raised on six acres of land. Mr. Miller's yield was over 24 bus. to the acre, or an almost unheard of high yield for red top. It tested 84.—W. B. C.

Preble, Ind., Aug. 7.—Corn is spotted and much of the growing crop is late, due to excessive rains at the beginning of the growing season. Wheat and oats are the poorest crops in 21 years. Wheat is testing 45 to 58 lbs. to the bu., oats as low as 19 lbs.—Wm. Meyer, Preble Equity Exchange.

Winnipeg, Man., Aug. 4.—The estimated seeded acreage for the crop season of 1937 for the provinces of Manitoba, Saskatchewan and Alberta for the different grains is as follows: Spring wheat, 19,497,000; durum wheat, 1,455,000, oats 6,973,000, barley 3,366,000, rye, 506,000, flax 320,000.—J. G. Fraser, manager North-West Grain Dealers Ass'n.

Dodge City, Kan., July 24.—Based on reports from Kansas grain dealers (altho reports were not received from all counties), the total wheat production for the entire state is estimated as follows: Western third of state, 11,662,000 bus.; central third, 94,303,000 bus.; eastern third, 34,111,000 bus.; total, 140,076,000 bus.—J. F. Moyer, sec'y Kansas Grain, Feed & Seed Dealers Ass'n.

Minneapolis, Minn., Aug. 7.—Reports coming in concerning the new crop continue to be very favorable. Flax has withstood the various perils of the present season better than any other crop in the Northwest. The consensus of opinion seems to be that the average yield per acre should be somewhere between seven and a half and eight bus.—Archer-Daniels-Midland Co.

Bluffton, Ind.—Threshing wheat in Wells County has brot only poor to fair results. Wheat is testing from 40 to 55 lbs. to the bu.; the yield will average about 10 bus. to the acre. On July 1st we expected one of the best crops ever threshed, but soon thereafter it began to show the effect of excessive moisture, then rust set in and finished the job.—A. F. McC.

Higginsville, Mo., Aug. 5.—According to the August 1 crop report, Missouri has a winter wheat crop of 33,012,000 bu., corn crop of 139,914,000 bu., oat crop of 35,149,000 bu., and barley crop of 2,930,000 bu. We must take into consideration that a large per cent of our wheat is of a very low grade and only suitable for feed.—A. H. Meinershagen, sec'y Missouri Grain Dealers & Millers Ass'n.

Evansville, Ind.—Union County farmers, driven from their homes last winter by the worst flood in the history of the Ohio Valley and who lost buildings, farm machinery, and livestock, are anticipating a bumper corn crop this year. There are more than 13,000 acres of corn in the section and if weather conditions remain favorable for the next few months, they expect to harvest around 600,000 bus. of corn. —W. B. C.

Winchester, Ind., Aug. 7.—Oats harvest is just getting under way and we doubt very much that there will be many sold. Farmers are running around over the country buying them of their neighbors. We can't see why as they have plenty of pasture, plenty of high prospects of cheap corn and thousands of bushels of low grade wheat. Nevertheless oats are going into the bins. Only complaint we are hearing about the new corn is that it has too many ears on the stock, but this is far better than having too few.—Goodrich Bros. Co., C. C. Barnes, ex-vice-pres.

Medicine Hat, Alta., Aug. 2.—From Rosetown west to near Drumheller, 200 miles, no crops of any kind and little vegetation. Encountered bad dust storm thru that section. Drumheller to Calgary, crops poor to fair. Except for irrigated sections, no wheat from Strathmore to here. Over week end general rain of one to two inches covered all of Alberta from Edmonton south, but will be of no help to wheat in drouth area. My opinion Western Canada wheat crop will not exceed 150,000,000 bus., including durums.—J. F. Moyer, sec'y Kansas Grain, Feed & Seed Dealers Ass'n.

Madison, Wis., Aug. 3.—It is expected that the state's farmers will harvest about 68,000 acres of winter wheat this year compared with 26,000 acres a year ago. Winter wheat production in the state will probably be about twice as large as the average crop of recent years, and Wisconsin farmers expect to harvest about 1,292,000 bus. The condition of the spring wheat crop in July indicated a production of 1,068,000 bus. compared with 1,040,000 bus. harvested last year. The spring wheat crop has been seriously reduced by hot and dry weather as well as by rust damage during the past few years.—Wisconsin Crop Reporting Service.

Chicago, Ill., Aug. 3.—The condition of United States spring wheat in the last week of July was 51.9% of normal, compared with a ten year (1926-35) average of 58.2. The yield per acre forecast is nearly 10.0 bus., and total production 210,658,000 bus. A month ago our forecast was 260,757,000 bus., without making any estimate of probable future damage by rust. The rye crop is reported to be yielding an average of nearly 13.0 bus per acre, a total of 51,322,000 bus. A wheat crop in the three northwest provinces of Canada has a prospect of only 160,976,000 bus., based upon reports by correspondents made in the last week of July. The condition reports averaged 38% of normal.—Nat C. Murray, statistician Clement, Curtis & Co.

Chicago, Aug. 3.—The condition of corn is estimated at 84.4% compared with 46.8% last Aug. 1. It remains to ascertain August weather in most leading corn states, before an accurate measure of the crop can be obtained. If realized, the yield per acre of 28.9 bus. will have been exceeded but 8 times in over fifty years. Only once since 1880 has the yield reached 31 or more bus. The estimated production of winter wheat is 653,187,000 bus. compared with 519,000,000 bus. last year. The condition of all spring wheat is reported at 49.0% of normal compared with 71.5% last month, 32.8% last August and the 1923-32 August average of 68.1%. Indicated production of all spring wheat is 195,387,000 bus., of which 25,427,000 bus. are durum varieties. The condition of oats at 81.0% of normal compares with 60.6% last year. Indicated production of oats is 1,168,000,000 bus. The rye crop is forecast at 51,186,000 bus. and the barley crop at 229,000,000 bus.—R. O. Cromwell, statistician Lamson Bros. & Co.

Minneapolis, Minn., July 28. — Northwest spring wheat states received good rains during the past few weeks. Flax made fine progress and is being harvested in southwestern Minnesota with exceptionally good yields. The corn crop is unusually promising in this whole area. The coarse grains are good, while the hay crop is abundant; and even with the expected and inevitable heavy loss of spring wheat by black stem rust (roughly estimated around 50,000,000 bus.) a fairly large crop with considerable light weight wheat will be harvested. The many fields of durum and thatcher variety bread wheat are resisting the rust infestation so far. Eastern Montana suffered severely from drouth, but the balance of the state may harvest a fair crop of all grains, altho several sections in the central and northwest expect poor crops. Conditions generally in the four northwest states are very favorable.—T. R. Shaw, editor Cargill Crop Bulletin.

Springfield, Ill., Aug. 4. — Crops are now needing moisture in many places. Threshing of winter wheat is well along with continued variable yields and considerable light-weight grain; plowing for fall sowing is becoming more general. Corn made good to excellent progress except that there was some firing on drier, light soils; condition of the crop is good to excellent; it averages about three-fourths tasselled and about half eared; there are numerous reports of stalks, measuring between 12 and 14 feet. An exceptionally good oat crop is half to completely harvested and partly threshed. Soybeans are mostly good to excellent; there has been some deterioration in a few drier localities. Second cutting of alfalfa continues, and in the Cairo area third cutting is about to start. While grasshoppers are reported as numerous, as yet they have done but little damage and that mainly to alfalfa.—E. W. Holcomb, U. S. Dept. of Agri.

Decatur, Ill., Aug. 7.—Wheat threshing is completed and everyone is glad of it. Too much light weight wheat, which is selling at tremendous discounts under milling quality. Corn prospects continue to hold up good, altho some sections are needing rain. Early fields now in roasting ear stage. Corn is well-eared with unusually tall stands in most fields thru the central area. While the number of hogs, cattle, horses and mules on farms has declined, it must be remembered that every industry and every farm crib, as well as elevator bins, are practically empty of corn at the present time. There will be a good demand for the early run of corn. Oats are a large crop—good quality —threshing now well along. Disappearance will be heavy this year as farmers are feeding them on a large scale. Feed manufacturers also find more oats can now be included in poultry rations and cut down the costly ingredients that oats displace. Oats now rank as the cheapest livestock feed available by a big margin.—Baldwin Elevator Co.

Minneapolis, Aug. 4.—Weather conditions during the past two weeks have been favorable not only for harvest but for the filling and ripening of the grain still uncut. Temperatures have not been excessive, and there has been sufficient moisture in the ground to permit standing grain to fill normally. Harvest is completed in the southern part of the territory, is moving rapidly northward, and will be generally completed within the next two weeks. Some grain has been combined but most of it has been shocked. The extremely spotted condition which has prevailed throughout the entire growing season is even more evident where actual outurn of the fields has been ascertained. Fields which gave a fair promise before harvest are frequently proving disappointing in actual results, but the contrary is equally true, that in many instances yields are much better than anticipated. The variation in quality is quite as great as in the yields per acre. Wheat will vary from the best No. 1 Northern, to wheat that will be suitable only for feed. While the average test weight will be less than normal, there will be a substantial percentage of millable wheat in the crop, with the possibility of a better bushel outturn than was anticipated before harvest. Next to wheat, the crop most severely damaged by the many adverse conditions which affected the growing period, is barley, and a substantial proportion of the crop which will come to market will show the effects of heat, blight, and rust. However, in bushels the outturn will probably be large, and there will be considerable good malting barley available from the most desirable producing sections.—Van Dusen Harrington Co., by Paul C. Rutherford.

Cedar Rapids, Ia., Aug. 9.—Saturday's drive, Mendota to Peoria to Freeport and Dubuque, Iowa. Rain badly needed in some places where corn is starting to fire, especially west from Freeport to Galena, whereas elsewhere the bulk of the crop was on the verge of trouble, depending whether or not it rains soon. Then today's trip on westward from Dubuque to Waterloo, Iowa, and to here, less firing. Soil not so dry as on Illinois side and this morning's rain, although light, will prove of some help. Corn and soy beans have heavy growth and the present promise is that the farmers will cut less beans for hay than intended earlier. Threshing about half completed. Oats yielding well.—H. C. Donovan, of Thomson & McKinnon.

Kansas City, Mo., July 28.—The cutting of wheat in Kansas is practically completed and a record run of wheat has come to market. A considerable portion of the crop has gone to storage, altho the entire volume handled at Kansas City and other interior points has made new records. Our own agent's reports from the country indicate at least 60% of the crop has moved from first hands, which includes both wheat sold and storage. The crop has been rather an unusual one, varying widely both in quality and quantity, but except for the area which suffered from rust and area that suffered from premature ripening the quality has been exceptionally fine and this excellent quality wheat is principally from that strip four counties wide from north to south in the central part of the state. This early rush to market was accounted for principally by the fact that prices were above the farmers expectations and furthermore that in the sections where yields did turn out better than expected the use of the combine is most prevalent with storage facilities at interior points inadequate. It seems to us we should also call attention to the fact that some of the wheat harvested in eastern Kansas can be used only for feed purposes. Our most careful analysis indicates the Kansas crop for 1937 at 139,361,000 bus.—The Robinson Elevator Co.

Crop Reporters' Estimates

Chicago, Ill., Aug. 3.—The Aug. 2 reports of private statisticians F. A. Miller of Jas. E. Bennett & Co., B. W. Snow, of Bartlett Frazier Co., Nat C. Murray of Clement, Curtis & Co., H. C. Donovan of Thomson & McKinnon, R. O. Cromwell of Lamson Bros. & Co., and E. H. Miller of Shields & Co., are summarized in millions of bushels as follows:

	Corn	Wheat
F. A. Miller	2,756,000,000	836,000,000
H. C. Donovan	2,780,000,000	850,000,000
Nat Murray	2,834,000,000	868,000,000
B. W. Snow	2,760,000,000	829,000,000
R. O. Cromwell	2,783,000,000	848,000,000
Mrs. E. H. Miller	2,715,000,000	784,000,000

Canadian Crop Report

Ottawa, Ont., Aug. 9.—Canada will have the smallest spring wheat crop in 30 years, the prediction being approximately 145,000,000 bus., according to the Dominion Bureau of Statistics. Condition of the crop on July 31 was only 35% of the long-time average yield per acre, against 51% a month earlier.

The winter wheat crop, officially estimated at 17,248,000 bus., means a total wheat production of about 162,250,000 bus.

With the exception of spring rye, flax, other coarse grains, including oats at 60% and barley at 63%, showed slightly better prospects on July 31, 1937, than on the same date a year ago. This was due to the comparative better conditions in Ontario, Manitoba and Alberta. Compared with June 30, 1937, the condition figures for practically all grains on July 31 were lower.

The fall wheat crop in Ontario is estimated at 17,248,000 bus., which is an increase of nearly 5,000,000 bus. over the small crop of last year. Fall rye in the whole of Canada is placed at 4,276,000 bus., an increase of more than 1,000,000 bus. over last year's production. The first cutting of alfalfa is slightly higher this year at 1,520,000 tons.

Did You Lose Your Hen?

Somebody has lost a hen, evidently someone living near a grain elevator or maybe the manager of an elevator.

Passengers on a train that stopped at Aneroid, Sask., recently, were much surprised to see a dazed, dirty and bedraggled hen jump from the rods of a passenger coach.

The hen knew what she was about. She marched straight for the grain elevator to pick up a meal.

Government Crop Report

Washington, D. C., Aug. 10.—The Crop Reporting Board of the U. S. Dept. of Agriculture makes the following report on condition in per cent, indicated production in thousand bus. (hay in thous. tons), and acreage in thousands of acres, on Aug. 1, 1936 and 1937:

	Condition		Production		Acreage	
	1936	1937	1936	1937	1936	1937
Corn	46.8	83.2	1,529,327	2,658,748	92,829	96,146
Winter Wheat	...	...	519,013	688,145	37,608	47,079
Durum Wheat	20.9	63.4	8,175	28,264	1,544	2,841
Other Spg. Wheat	34.5	54.8	99,273	174,010	9,668	18,278
All Spg. Wheat	32.8	55.8	107,448	202,274	11,212	21,129
All Wht.	...	...	626,461	890,419	48,820	68,198
Oats	55	79.5	789,100	1,130,628	33,213	35,933
Rye	...	...	25,556	51,869	2,757	3,960
Barley	48.4	68.6	147,452	227,398	8,322	11,166
Flaxseed	31.6	68.1	5,908	8,014	1,180	1,081
Soybeans	59.5	84.6	.....	.....	5,635	6,049
Hay—						
Tame	57.5	80.8	63,309	74,904	57,055	55,773
Wild	42.0	68.3	6,915	9,993	10,694	12,546
Pasture	41.6	73.9	.....	.....	.....	.....

Northeastern Indiana Dealers Meet

Members of the Northeastern Indiana Hay and Grain Dealers Ass'n went to Columbia City July 29 and after a dinner at the Clugston Hotel held a very interesting meeting in the City Hall, where they were welcomed by James Adams, former Indiana highway chairman and banker of Columbia City.

Receivers from Toledo, Indianapolis, Chicago, Delphos, O., were in attendance. Shippers from nearly all surrounding towns were also there, in all there were seventy-four registered.

Topics of importance such as low grade wheat and oats, prices, discounts being taken by different territories, seed outlook, also movement of the new hay crop, were discussed.

Fred K. Sale of Indianapolis took charge of the meeting during the discussions.

In all a very good meeting was had and everybody said they had enjoyed themselves a lot.

A schedule of discounts for the elevators in nearby towns such as Bluffton, Decatur, Huntington and Berne was adopted on wheat bought. The base price is paid for 58-lb. wheat, and 1 cent premium for 59 and 60-lb. Discounts are 57-lb., 1c; 56, 3c; 55, 5c; 54, 7c; 53, 10c; 52, 14c; 51, 18c; 50, 22c; 49, 27c; 48, 32c; 47, 38c; 46, 44c; 45, 50c; 44, 56c; 43, 62c; 42, 68c; 41, 74c; and 40-lb., 80c. Discounts for moisture are: 14%, .00; 14.5%, .01; 15%, .02; 15.5%, .03; 16%, .04; 16.5%, .05; and 17%, .07.

Pres. Garth W. Woodward of Tocsin is satisfied he has the strongest local organization in Indiana. Certainly there is less throat-cutting in that territory than in other parts of the state.

Corn Imports at Chicago

Lyman C. West, statistician of the Board of Trade, reports that of the 7,265,000 bus. of corn received at Chicago during July 5,360,000 bus. was imported by water.

June imports were 4,284,000 bus., and those for the month of May were 2,708,000 bus.

Cargoes of corn unloaded so far during August have been as follows:

Date	Steamer	Bushels
July 28	Penetang	86,000
July 28	Wm. Schupp	97,000
July 31	Windoc	260,000
July 31	J. B. Foote	93,000
Aug. 2	Barge 137	190,000
Aug. 2	W. F. Nisbet	109,000
Aug. 4	Shelton Weed	103,000
Aug. 5	Canadoc	256,000
Aug. 5	Meaford	92,000
Aug. 6	Hagarty	380,000
Aug. 6	Don Stewart	83,000
Aug. 7	Rahane	66,000
Aug. 9	W. D. Rees	200,000
Aug. 9	J. J. Rammacher	97,000
Aug. 9	Saracen	100,000
Total since July 31		1,866,000

If corn imports are to continue at this rate it will be necessary for the government to plow up more of the domestic acreage.

Heavy Receipts at Kansas City

Combine harvesting and attractive prices joined in boosting the early harvest rush of wheat from territory tributary to the Kansas City market, where the crop was larger than usual, that of Oklahoma being 62,286,000 bus. against 27,250,000 bus. a year ago.

By carloads Kansas City received during July, 1937, 30,041; 1936, 18,911; 1935, 6,911; 1934, 8,685, and in July, 1933, 6,860 cars of wheat.

Years in which the wheat receipts at Kansas City have been heavy during the month of July follow: 1937, 48,065,000 bus.; 1936, 30,257,000; 1931, 40,619,000; 1930, 35,612,000; 1929, 37,564,000; 1928, 35,561,000; 1927, 19,957,000; and 1926, 31,949,000 bus.

Kankakee Local Meeting

Almost 125 grain dealers from the Kankakee, Ill., territory held a meeting at Kankakee August 6 to protest a reported proposal of the Post Co. of Battle Creek, Mich., to buy ear corn direct from the farmers.

Announcement of plans for construction of a huge corn products plant at Kankakee was made recently by General Foods, of which the Post company is a unit. The plans are reported to include equipment for receiving grain by truck.

The gathering of grain dealers from the territory tributary to Kankakee adopted a resolution vigorously opposing direct purchasing of grain by the Post company from farmers.

The index of prices paid by farmers for all commodities was 133 per cent of pre-war (1910-14) on July 15, or one point lower than the revised index for June. The ratio of prices received to prices paid by farmers was 94 per cent of pre-war in mid-July, or 1 point higher than both a month earlier, in July, 1936, as reported by the Buro of Agricultural Economics.

Grading of New Oats

No. 4 and sample grade oats are conspicuously absent from the receipts at Chicago on the new crop, the percentage of these low grades being very small, almost negligible.

During the week Aug. 2 to Aug. 7 inclusive the Chicago receipts graded 281 cars No. 1, 584 cars No. 2, 204 cars No. 3, 12 cars No. 4, and 5 cars sample.

The preceding week 325 cars graded No. 1, 452 cars No. 2, 148 cars No. 3, 13 cars No. 4, and 8 cars sample.

During the entire month of August, 1936, cut of 1,451 cars arriving, 994, or only 68 per cent, were graded No. 2 or better, while during the first week of August this year out of 1,096 cars arriving 865, or 80 per cent, were graded No. 2 or better.

Since the new crop started to move no light oats have been received at Chicago to be graded "thin" under the new rules, formerly described as "cereal."

It is gratifying also that receipts are more than double August receipts in 1936.

Imports of Corn

Imports of corn into the United States, principally from Argentina, have been as follows, in bushels for the month and calendar year, as reported by the Department of Commerce:

Monthly Imports, 1936		Annual Imports	
January	1,868,798	1936	31,470,923
February	583,372	1935	43,233,000
March	1,185,512	1934	2,959,000
April	1,052,400	1933	161,000
May	937,760	1932	313,000
June	34,473	1931	649,000
July	1,300,996	1930	1,542,000
August	1,549,035	1929	406,000
September	4,163,566	1928	565,000
October	8,122,228	1927	5,458,000
November	6,263,178	1926	1,055,000
December	4,429,605	1925	1,086,000
1937—		1924	4,107,000
January	5,409,000	1923	203,000
February	8,653,691	1922	113,000
March	9,458,000	1921	164,000
April	6,211,000	1920	7,784,000
May	8,609,511	1919	11,213,000

Efficiency of Electric Moisture Testers

By D. A. COLEMAN, Buro of Agricultural Economics, U. S. Department of Agriculture

The utility of electric moisture meters for routine use in grain inspection has been reported to be "extremely limited" by the Dominion Grain Research Laboratory in its Tenth Annual Report. Doubt is expressed "as to whether electrical methods of moisture testing can satisfactorily replace the Brown-Duvel method in routine grading."

This general conclusion differs materially from the conclusions reached by the United States Buro of Agricultural Economics as a result of its nine years of research on methods and devices for determining the moisture content of grain. Approximately 500 electric moisture meters are now being used in the United States by Federal Grain Supervision offices, grain inspection departments, grain elevators and flour mills, for making routine determinations of the moisture content of grain. The Buro, therefore, considers it desirable to present a few of the important facts pertaining to the electric moisture meter that have been developed as the result of its long-time study of this subject.

Two principal objections to electric moisture meters are advanced by the Dominion Grain Research Laboratory, namely (1) "that the relation between electrical resistance and moisture content varies with the district in which the grain is produced," and that for this reason a conversion chart computed for hard red spring wheat is not applicable to all such wheat from several producing areas; and (2) that "it has been found that the conversion charts for normal wheat are not applicable to newly threshed grain, particularly if it has been weathered, nor to artificially dried grain."

The phenomenon of variations in the relationship between electrical resistance and moisture content of wheat arising from environmental influences is one that has been well known to the Buro for many years and that was given thoro consideration prior to the Buro's adoption of the electric moisture meter for the purposes of federal grain supervision. Variations in this relationship have been found to be major or minor in character. An example of a major variation arising from environmental influences is had in the case of white wheat produced in the Pacific Northwest and white wheat produced in the States of Michigan, Ohio, and New York. Examples of minor variations arising from environmental influences on wheat may be had in the case of hard red winter wheat produced in Western Kansas as compared with hard red winter wheat produced in Eastern Kansas; also in the case of soft red winter wheat produced in Pennsylvania as compared with soft red winter wheat produced in Kentucky.

Separate Conversion Charts. — The Buro's studies of this phenomenon resulted in the formulation of separate conversion charts for Pacific Coast white wheat and for Eastern States white wheat. These separate charts to take care of this major variation have been in practical use for two years and have been eminently satisfactory. Research and experience with the minor variations arising from environmental influences on wheat such as those previously stated have clearly shown, however, that there is no necessity for separate conversion charts to provide for practical accuracy and uniformity in determining the moisture content of wheat. Research of these cases has shown, for example, that the error range (based on air-oven tests) does not exceed 2/10 of 1 per cent with the electric moisture meter, and that this maximum error range is insignificant in routine moisture testing of grain as compared with the far greater error range that is associated with the use and operation of the Brown-Duvel device.

Another phenomenon in the relationship between electric resistance and the moisture content of grain was discovered by the Buro during the course of its studies pertaining to the moisture content of rye. These studies showed that the size of the rye kernels is an important factor affecting electrical resistance. An example of a major variation arising from the size of rye kernels may be had in the case of large-berried Polish or Rosen rye as compared with small-berried North Dakota rye. Separate conversion charts were formulated, therefore, for large-berried types and for small-berried types of rye, and the use of these charts during recent years has shown them to be entirely satisfactory in obtaining accurate and uniform moisture tests of rye.

Testing Artificially Dried Wheat.—The other principal objection to the electric moisture meter reported by the Dominion Grain Research Laboratory pertains to determining the moisture content of newly-threshed or artificially-dried wheat by means of the conversion chart used for normal wheat. This problem also has been studied in the Buro of Agricultural Economics during its nine years of research with respect to moisture determinations of grain. Altho it is a fact that the accuracy of electric moisture meter tests may be influenced adversely by newly-threshed grain when portions of such grain vary materially in moisture content as the grain comes from the field, this phenomenon is not of important significance in determining accurately and uniformly the moisture content of commercial lots of wheat. For commercial purposes, the vast majority of newly-threshed grain is not tested for moisture immediately after threshing. Normally the tests are made after the grain has been at rest in a farm granary or in a railroad car or vessel for a sufficient time prior to the time of moisture testing to permit of equalization of the moisture content throughout the mass of the grain, thus making possible uniform testing with the electric moisture meter.

The problem of obtaining accurate tests of artificially-dried grain with the electric moisture meter is not one of any significance in the case of wheat because of the fact that the quantity of wheat that is artificially dried in the wheat commerce of the United States is insignificant.

This problem, however, in the United States is a real one in the case of freshly kiln-dried corn or newly-made mixtures of old corn and new corn of varying moisture content. In the case of these problems as they pertain to corn, the Buro for two years has publicized the fact that electric moisture meter readings on such kinds of corn may be unreliable at times when the tests are made immediately after the artificial drying or immediately after the mixture of old and new corn has been made, and that under these circumstances the Brown-Duvel tests are relatively more reliable. Research has shown, however, that when such kinds of corn have been at rest for 24 hours or more, at temperatures of 70° F., or over, the moisture content becomes equalized in the grain, thus making possible the making of accurate tests with the electric moisture meter.

The history of grain inspection in the United States shows that the grain industry's chief concern with respect to grain inspection has to do with the uniformity of the inspections or tests as made by the many inspection departments and individual inspectors who function to inspect, grade, and test grain in the channels of commerce. For this reason uniformity in making moisture tests of grain is a matter of major importance in grain inspection routine, and the Buro's moisture-testing studies during the past nine years have proved conclusively that a greater degree of uniformity in the making of moisture tests among many markets and many inspectors may be maintained with the electric moisture meter than with the Brown-Duvel moisture tester.

Comparison with Air Oven Tests.—Prior to the adoption of the electric moisture meter for the purposes of federal grain supervision, this matter of uniformity was given extensive consideration by the Buro. One example of such research and the findings therefrom is given herewith. Samples of wheat were apportioned among 45 federal grain supervision offices for testing with the Brown-Duvel moisture tester and the electric moisture meter. The operators were skilled as a group and both devices were standardized and operated in accordance with definite instructions. With the electric moisture meter, 97 per cent of the tests made by this group of operators were within a practical operative error range of 2/10 of 1 per cent, whereas, with the Brown-Duvel device, only 49 per cent of all tests made were within this practical operative error range. Furthermore, only 3 per cent of the tests made with the electric moisture meter showed deviations greater than 2/10 of 1 per cent, with only one extreme deviation as great as 3/10 of 1 per cent; whereas, with the Brown-Duvel moisture tester, 51 per cent of the tests showed deviations greater than 2/10 of 1 per cent, 39 per cent showed deviations of 4/10 of 1 per cent or higher, 7 per cent showed deviations of 6/10 of 1 per cent, or higher, and there was one extreme deviation of 9/10 of 1 per cent. These deviations from accuracy are expressed in terms of comparison with laboratory air-oven check tests.

Neither Pretends to Absolute Accuracy.—Whenever attempts are made to evaluate the accuracy and general usefulness of the electric moisture meter and the Brown-Duvel device for the purposes of routine grain inspection, it should constantly be kept in mind that neither one of these devices is capable under any circumstances of making moisture tests with absolute accuracy. Altho neither of these devices is scientifically precise, they are both far more practical for the purposes of commercial grain inspection than such moisture-testing equipment as the air oven and the water oven, which approach absolute accuracy in grain moisture testing but which are entirely impractical for the purposes of routine grain inspection because of the time involved in making the tests.

In realization of this fact that neither the Brown-Duvel device nor the electric moisture meter is capable of making scientifically precise moisture determinations, the official grain standards of the United States make use of the water-oven test for the basic official method in determining the moisture content of corn, and the air-oven test for all other kinds of grain. The official standards, however, provide that moisture may be ascertained by any device and method which give results in the determination of moisture that are equivalent with those obtained by the basic official oven tests. Thus, any device for determining the moisture content of grain, which gives reasonably equivalent results with the oven tests, is permissible for grain inspection purposes in the United States.

Since July 1, 1935, when the above-mentioned "percentage of moisture" specifications were made a part of the official grain standards of the United States, the electric moisture meter has been widely installed and adopted as a practical device for making moisture tests for the purposes of the standards and for commercial purposes. The experience of the past two years with the electric moisture meter has shown conclusively that when it is used and operated strictly in accordance with the handbook of instructions for its use issued by the Buro of Agricultural Economics, it has been found to be more satisfactory for all phases of routine grain inspection than the Brown-Duvel device, even tho there are a few problems in grain moisture testing such as those previously mentioned which as yet cannot be handled with a full degree of satisfaction.

Electric Meter Has Speed.—The fact that with the electric moisture meter one operator can make as many tests with it in one hour as one operator can make in a day's time with a 12-unit battery of Brown-Duvel testers, has most usefully extended the scope of moisture testing in the commercial inspection and handling of grain. Furthermore, research and experience with the Brown-Duvel device in recent years have shown that it is difficult to standardize and difficult to operate uniformly, especially when it must be operated under high pressure to meet modern trade requirements. Inaccurate tests with the Brown-Duvel device constantly result from such causes as variations in the heat units of the flame, variations in the screens that are used over the flames, variations in the glassware, and variations in the quantity and quality of the oil, as well as from failure to standardize the units exactly or to conduct all operations with the utmost precision.

In addition to the vastly greater rapidity with which moisture tests may be made with the

Ura Seeger's Elevator Leaves its Foundation at Johnsonville, Ind. [See outside front cover and facing page]

electric moisture meter than with the Brown-Duvel device, experience of recent years has shown conclusively that for a large majority of the moisture tests required in the commercial inspection of grain, the electric moisture meter may be relied upon to make these routine tests with a greater degree of accuracy and uniformity than the Brown-Duvel device.

In evaluating the usefulness of the electric moisture meter, however, it should always be kept in mind that it is a practical device and not a device capable of making tests constantly with scientific precision. In the great majority of cases it accomplishes its work within a practical error range of 2/10 of 1 per cent when operated on the basis of the handbook of instructions for its use issued by the Buro of Agricultural Economics. Altho from a scientific point of view absolute accuracy in grain moisture tests could be approached by the use of the relatively precise air-oven and water-oven tests, these tests are not practical for the purposes of routine grain inspection. To date the research work of the U. S. Buro of Agricultural Economics has shown that the electric moisture meter is the nearest approach to a precise device and method for determining the moisture content of grain that is practical for a large majority of the moisture tests required by modern conditions of grain inspection and grain commerce.

A Hoosier Elevator Goes Traveling

The Ura Seeger elevator that has stood for so many years on a sidetrack of the Wabash railroad at Johnsonville, in Warren county, Ind., has been moved to a new location 3¾ miles distant, to set on another sidetrack of the same railroad at Marshfield, Ind., where Mr. Seeger lives.

Lifting the elevator to house-moving trucks, and moving it bodily to the new location was no child's play, even for C. C. Metzcar, the house-moving expert who contracted the job. The elevator is 36x36 ft. on the ground and 85 ft. high, and weighs just about 200 tons. Such weight demands at least a temporary foundation all the time, and the height required that the elevator be kept reasonably level during the course of moving. The problem was complicated by wide variety in the character of the terrain between the two locations. The elevator had to be moved thru a field, to cross a bridge, 'Possum Run Creek, and pass over the tracks of the Wabash railroad to reach its new foundation.

Gravel country roads helped part of the way. But even over the roads track had to be laid to carry the elevator and this part of the moving was complicated because the roads were not wide enough to carry the weight of the elevator. A track had to be built up in one of the ditches to support one of the three trucks with which the moving was done.

"Bansaters," wood members that most folks would refer to as railroad ties, were used in laying the track, and were cribbed up in the low spots to build a track that would keep the elevator reasonably level. At the bridge over 'Possum Creek the elevator had to be hoisted a little higher into the air, so that it would clear the guard rails of the bridge. The bridge itself, never built to support such a load, was in turn supported by cribbed ties, laid thru the creek bed, while one truck moved on its own bansater trackway paralleled the bridge.

This 40,000 bu. cribbed and iron-clad elevator was unharmed by being moved. Today it stands on its new foundation at Marshfield, with all gears, shafting and belts running true, an active unit in Ura Seeger's line of six grain buying stations.

General Mills, in a letter to stockholders, point out that federal, state and local taxes for the past fiscal year approximated $4.11 a share on the outstanding common stock, compared with $2.75 a share for the fiscal year ended May 31, 1936.

Walla Walla, Wash.—Walla Walla County's "Grain Patrol" vigilantes of the wheat belt are riding the section line road these nights looking for "grain rustlers." The newly-organized patrol came into being as wheat growers sought protection from the thieves who raid newly combined fields at night and make off with the sacked grain or pilfer tool boxes. Rustlers sell their stolen grain to independent dealers. Cars used by the patrolmen are equipped with searchlights that penetrate far back in the fields.—F. K. H.

Toledo Territory Dealers Discuss Crop

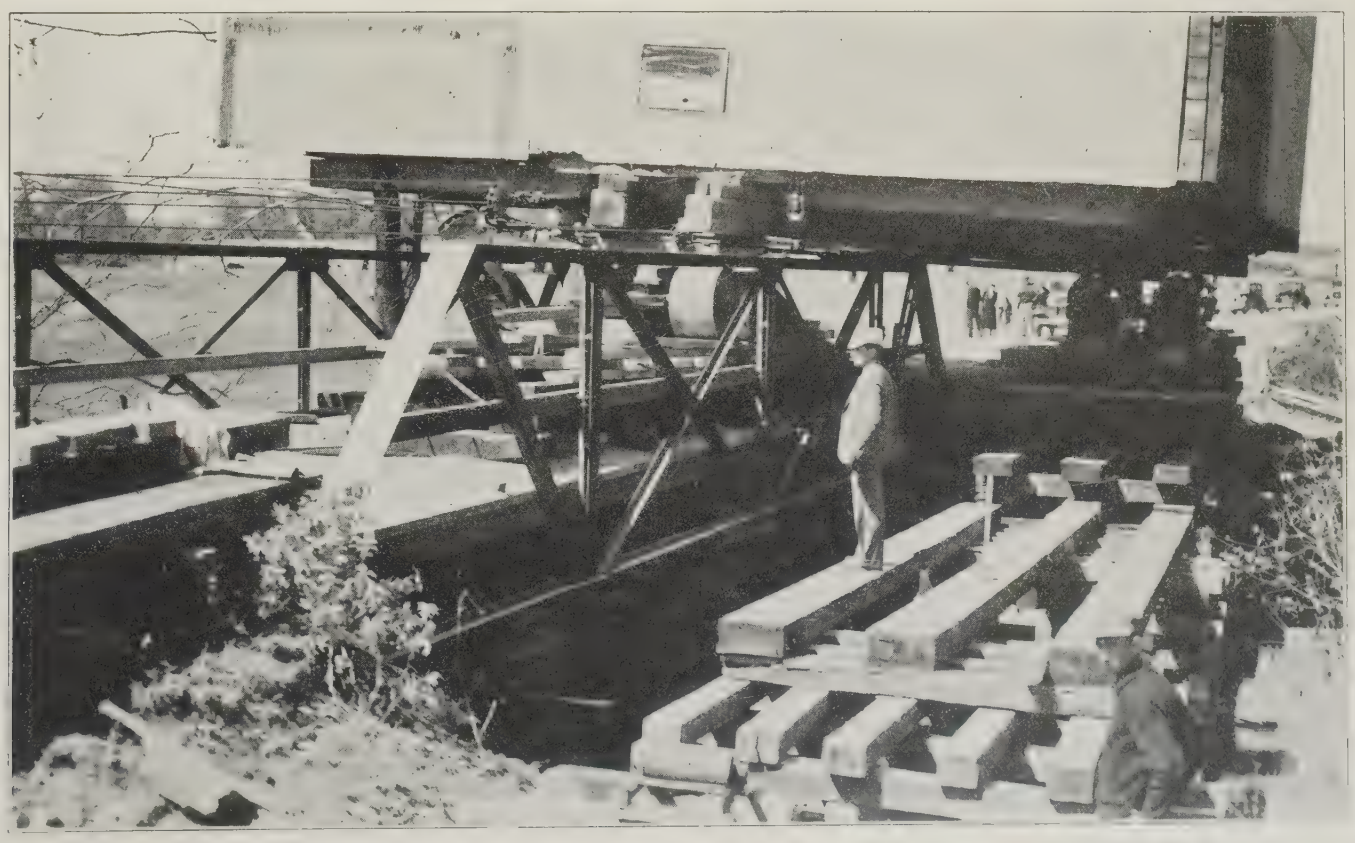
More than 170 delegates attended a dinner meeting of grain dealers and country elevator operators from north central Ohio, and southern Michigan at Toledo, O., last month. Leon Gove presided. Sam Rice, pres. of the Toledo Board of Trade, provided the dinner at Smith's Cafeteria and acted as host.

Addresses were made by H. W. Applegate, Toledo, on world wheat conditions and price determining factors. "The laboratory in the milling business is now a factor that has very much to do with the making of wheat prices," said Mr. Applegate. "The point should not be overlooked that the miller must secure, as near as possible, the grades of wheat that make the right kind of flour.

"The cheapest wheat that a miller can buy is No. 1 dry wheat. We are afraid this year there is going to be more off grade wheat and more discount wheat. Therefore, it is up to the country elevator man to buy his wheat right and on the proper margin or he is bound to suffer losses. If there is but little No. 1 and No. 2 wheat raised in soft wheat territory, and the big preponderance of wheat is of lower type, later in the crop movement the discounts on the poor wheat will be greater than they are at the start. The wheat buyer must keep this in mind."

Charles Dillon, Bellevue, talked on the margins needed by country elevators for handling grain; L. C. Schmunk, Oak Harbor, discussed the use of grading factors in buying grain from the farmers; S. L. Rice, Metamora, took up the question of all grain dealers changing prices at a uniform time; S. Jeffery, Shinrock, believed that trucks should earn their way; A. T. Corrigan, Ohio industrial relations department, urged delegates to comply with state regulations for manlifts. H. F. Prue, Toledo's federal grain supervisor, demonstrated the use of modern electric moisture testers.

A number of delegates voiced an opinion that wheat should be bought on grade and on margins of at least 5c per bu.



Ura Seeger's Roving Elevator Crosses Bridge on Three Feet [See Outside front cover and facing page

Electricity in the Elevator

By J. H. IRWIN, manager, Western Terminal Elevator Co., Ltd., Fort William, before the Society of Grain Elevator Superintendents

Do we realize what white coal has blessed us with? No steam boilers to keep cleaned and in repair. No suitable water supply to provide. No coal storage space and fuel supply to occupy valuable property. No smoke to mar the beauty of the structure, which becomes dirty-looking all too soon. No waiting to get steam up. No multiplicity of main and line shafting with clutches, rope, chain and belt drives to maintain; but, on the other hand, plant is started and stopped in short order. Only the machinery required is operated and power interruptions in this vicinity are an almost forgotten inconvenience. Many plants maintaining a peak of 60% of their connected load and at times taking advantage of the 25% drawback on their peak as a minimum.

Power Costs—Today's prevailing power contracts are on the basis of $1.00 per month per HP service charge—20 minutes' peak; 1.6c for the first 50 KW Hours consumption; .9c for the next 50 KW Hours consumption; .1c for the balance of the consumption, with a 15% discount for 22,000 volt power, and a further 10% discount for prompt payment within ten days of billing date, with 90% power factor. Where in times, due to lack of business, peak at 75% minimum or less can be established for 11 consecutive months, a new peak is granted. A concession to some plants enabling a reduction of 25% to 50% in peak with resultant saving in costs. These rates are a 4.68% reduction implemented August 1, 1936, as compared to previous rates in effect where first 50 hours was at 1.75c per KW and second rate 1c for next 50 hours. Even in spite of these cheap rates, in 1928 elevators in Port Arthur were granted an 8 1/3% rebate and likely to get a 20% rebate based on 1936 billing. Owing to predominant low load factor in terminal elevators, cost per HP and consequently per bushel, ranges from $12.84 to $18.85 per HP and .157c to .239c per bushel handled, on actual power peak and paid for. Actual cost per KW hour used ranging from .948c to 2.219c and bushels handled per KW hour from 16.4 to 6.6.

Electric Heating—The rate structure giving a third, or .1c a KWH price, lends itself to and makes possible the economical application of electricity for heating purposes, small 550-volt air heaters being adaptable to heating the small offices thruout the plant. While for the larger main offices, welfare buildings, inspection and weighing offices, bayonet type immersion heaters installed in hot water or steam heating plants have proven themselves inexpensive, clean, easy of operation, capable of supplying reliable even heat, and best of all, at a cost less than that of fuel without taking into consideration the labor of firing and the removal of ashes, at the same time leaving the regular heating units intact ready for ordinary firing should the electricity not be available without going into the first or second period rate or increasing the peak. Cost of installation, depending on the adaptability of regular heating units, sometimes expensive but paying for itself in one to two years.

In years gone by before the power companies had much experience in application of rates to elevator loads, some plants enjoyed contracts at $25 a HP per year for half their peak load and 1½c a KW hour for the other half. This did not provide the revenue expected, considering the peak held available, although due to the low load factor of 25% to 35%, a better diversity was possible than under present rates in effect.

A comparison of rates with other centers on a like load reveals that on a 100 HP, 200 hours' use, the head of the lakes pay $188.99, as against $189.90 in Toronto; $206.64 in Windsor; $238.70 in Winnipeg; $227.22 in Montreal; $267.78 in Quebec, and $249.14 in Vancouver.

It is recognized by leading authorities that electricity even at the highest of above centers, far outdistances steam, gas producer, gasoline or diesel power, in economy, adaptability, ease of application, reliability, and that on present rates the more used the lower the cost per KW hour, which cannot be said of the other methods quoted. (Electricity is inexpensive because it is widely used and it is widely used because it is inexpensive.) A beneficent circle.

Development and improvement of electrical apparatus has been a real boon to the terminal elevator operators. Motors from the old squirrel type, lending themselves to collection of dust and creating a fire hazard, now are almost totally enclosed and ventilating fans expel rather than collect the dust. Auto-starters formerly with drum type or three point are now of the push button make. The old-fashioned open switch box and fuses now supplanted with enclosed, oil-immersed, overload relays. Power factor control, always a contentious matter with the power companies, now made a pleasure by the use of the up-to-date low power consuming static condensers or capacitors, as compared to the synchronous motor, out of which no operating use could be made on account of the fire hazard the exciter end created and therefore prohibited by the insurance underwriters from location in the elevator where subjected to usual dust conditions.

Oil type and air gap lightning arresters, never very reliable, now superseded by the electrolytic sure ground apparatus only requiring to be kept clean. Incredible as it may seem, yet there are cases on record where lightning has entered through an open window on the top floor and in finding ground has burnt off the terminals on the back of first floor distributing switch. Again in finding ground ran along a lead-covered, armour-clad feeder cable and set the dust on top of cable afire. Or where power house lightning arresters either thru failure to operate quickly enough or faulty operation has exploded the no-voltage-release coils on the main operating feeder switch. Such incidents only emphasize the importance of checking lightning arresters frequently, especially during season lightning is prevalent and of keeping windows near motors, distributing boxes and overload relays closed in time of storm, as well as keeping all power cables clear of stagnant dust, which otherwise might lead to serious damage to equipment. A strange case in this district was when a phase on the power company's 22,000-volt feeder line became defective and in seeking ground put a phantom overload on a customer's transformers of a considerable size, even though no power was being consumed. This, on the other hand, was a penalty for having too good a ground.

In the care of motors it has been found good practice and well worth the time and expense to at least once a year of normal handling to dismantle every motor, replace worn bearings, which sometimes only require switching from one side to the other to provide a new wearing surface, repairing any worn insulation, and painting coils at least twice with a good grade of motor varnish. Most of the plants now have their own babbit mandrels for the different size bearings and the electrical companies supply the most suitable kind of babbit of their own compounding at a price usually lower than where purchased from a babbit manufacturer. Such treatment insures uninterrupted service, except, of course, in case of accident where a motor may have become covered with grain while running or where it may have become short-circuited from water or a nail or piece of metal getting in between rotor and stator; but such cases in the modern electric elevator are very rare.

It is also usual to filter the oil in all auto-starters and transformers about every five years to remove any moisture that may have accumulated from condensation and, I believe, one of the recommendations that will be coming before this convention is the purchase of a joint oil filter that can be used at the different plants rather than have to rent, as at present. This suggestion should meet with the approval of all concerned.

Modern lighting has done much to improve working conditions, lessen accidents and better the care and attention to equipment. In addition the use of the daylight or blue lamps permit the grading and shipping of grain at night with a certain degree of safety. It often accentuates certain types of grain or impurities, but, by comparison with similar grain shipped during daylight, a close uniformity can be maintained.

With the present day high wattage tungsten filament lamp, greater care in keeping clean is necessary, for where left to become coated with dust, it very readily ignites the dust, and this again may have far-reaching hazardous effects. A light left hanging at the front of an open leg became so coated with dust that it exploded. Part of the light and some of the burning dust flew into the buckets, which, fortunately, were so full of oats that the burning dust fell out again but landed in the leg well just above the ceiling of the first floor. The next morning indications of burning dust were in evidence. No machinery was started and, after much investigation, the place discovered. The next problem was then how best to get it removed. Yours truly, much younger and less experienced than at present, went down the leg on the buckets from the bin floor and with a broom intended sweeping the burning dust into the buckets opposite and then backing the leg up by hand to where it could be removed at the ground floor. The best of plans often miscarry and needless to say at the first disturbance of the burning dust when it then received a current of air up the leg well, it ascended in one fine flare of burning dust right up the leg well to the casing at the bin floor and I in turn reached there also as fast as the buckets could be climbed, but minus any eyebrows, eyelashes or hair on hands or head where not covered, and very, very frightened. Often wonder what really might have happened had it not been in a leg well, where the casing, fortunately, was clean and gave the flare a chance to dissipate without disturbing any other dust. The burning dust was later easily put out by sprinkling water on it from the bin floor.

Another instance worthy of mention was where an extension was left in a scale in preparedness to sweeping it out after shipping refuse screenings. The garner above was being swept out and by the time the scale was reached no light was on the extension. Later, however, after the scale was cleared it was found that the screenings in the bin where the sweeping went, was afire in several places. Two pails of water sprinkled on the burning spots and then gathered up, removed the fire. Just another example of why lights should be used with ordinary horse sense and not exposed to dusty locations unless covered with a vapor-proof globe; but, better still, keep them out of such places, for you cannot see anyway if

[Continued to page 128.]

Grain and Feed Trade News

Reports of new firms, changes, deaths and failures; new elevators, feed mills, improvements, fires, casualties and accidents are solicited.

CALIFORNIA

Livermore, Cal.—R. A. Nelson, grain and hay dealer, has completed installation of a one-ton feed mixer and a 35-h.p. hammer mill.

Knights Landing, Cal.—The new Robbins Warehouse was receiving grain before it was entirely completed. L. P. Henigan is manager.

Los Angeles, Cal.—E. T. Petersen, Pacific Coast manager for Cargill, Inc., has opened an office for the company in this city, and Mr. Zednesdick, who has been with Cargill in its Memphis, Tenn., office, has been transferred to this point to have charge of the local office.

CANADA

Winnipeg, Man.—The Winnipeg Grain Exchange Council has approved continuing the daily 5 cent limit on all wheat and coarse grain futures fluctuations, the limits to remain effective until the end of this year, at which time the question of continuing them will be considered.

Hamilton, Ont.—Equipment of the 2,000,000-bu. elevator reported in the July 14 Journals as under construction for the Hamilton Elvtrs., Ltd., by the Macdonald Engineering Co. will include a pair of electrically operated traveling marine towers that will provide facilities for unloading and loading grain boats simultaneously, unloading up to 30,000 bus. an hour and loading at the rate of 20,000 bus. an hour.

Vanncouver, B. C.—Lease of the No. 2 Harbor Board grain elevator here will be given up by the Alberta Wheat Pool, which has operated the house for several years and the elevator will be closed. The Alberta Pool will ated the house for several years and the elevator here. Pacific Terminals, Ltd., is operating Harbor Board Elvtr. No. 1 and United Grain Growers are operating No. 3. The remaining elevator here, which is privately owned, is the Midland Pacific.

COLORADO

Denver, Colo.—Newton A. Gray, formerly of Salina, Kan., is now located in Denver with the Summit Grain Co.

Antonito, Colo.—The Antonito Mill & Elvtr. is being remodeled and reconditioned for use, after being idle for several years. New equipment includes a 100-h.p. diesel engine and a late model grinder. Four storage tanks are being erected, having a capacity of 32,000 bus. The mill will have a capacity of 125 barrels a day.

ILLINOIS

Sublette, Ill.—The Sublette Farmers Elvtr. Co. is metal-cladding its elevator.—G. H. R.

Davis Junction, Ill.—H. Lew Mathre has installed a new heavy duty Soweigh Motor Truck Scale.

Sibley, Ill.—A new grain warehouse is under construction here for the estate of Hiram Sibley.

Danville, Ill.—The Illinois Grain Dealers Ass'n will hold its 1938 convention here, on May 9 and 10.

Morris, Ill.—The Farmers Square Deal Grain Co. has painted all of its frame buildings.—G. H. R.

Jacksonville, Ill.—The C. R. Lewis Estate recently purchased a new heavy duty Soweigh Motor Truck Scale.

Henry, Ill.—W. W. Dewey & Sons have installed a truck lift and elevating machinery in a new corrugated iron structure, 14x24 feet, on the east side of the elevator's large ear corn crib. The new equipment can unload and elevate 100 bus. of corn in five minutes.

Cropsey, Ill.—Homer Strum, of Armington, has been employed as manager of the Cropsey Co-op. Grain Co.

Tuscola, Ill.—The DeKalb Agricultural Ass'n has purchased property here, on which to erect a branch feed plant.

Cambridge, Ill.—A new 15-ton truck scale, with a 22x9-foot platform, was recently installed at the elevator of William Ringle & Co.

Ladd, Ill.—The Ladd Elvtr. Co. is equipping its plant with a Clow-winter direct connected geared head drive and 10-h.p. Fairbanks motor.

Farmer City, Ill.—A Clow-Winter direct geared head drive and full floating boot are being installed by the Weedman Grain & Coal Co.

Savanna, Ill.—The grain elevator here located on the C. M. St. P. & P. Ry. has been purchased by Rosenbaum Bros. and will be operated by them.

Chillicothe, Ill.—C. H. Mead, manager for many years of the Turner-Hudnut elevator here, is now manager for the new owner, the Norris Grain Co.

Eldorado, Ill.—Plans for the construction of an elevator here are being made by Charles G. Bramlet, of the Bramlet Mill, in preparation for next year's harvest.

Cullom, Ill.—The Co-op. Grain Co.'s storeroom burned July 27; valuation of building $2,500, total loss, insurance, $800; valuation of contents $7,500, total loss. insurance $4,200.

Mendota, Ill.—The office of the Farmers Co-op. Supply Co. was entered, over the week-end of July 17, and between $35 and $40 stolen. Entrance was gained thru a basement window.

Bellflower, Ill.—Clarence W. Johnson, grain dealer here for the last 28 years, has sold his business to the Terminal Grain Co., of St. Louis, and will remain as the agent of the new owner.

Princeton, Ill.—The E. W. Hopkins Grain Co. has completed an addition to its elevator office, the new office being 34x14 feet. The company plans to install a new 20-ton scale with a 22-foot platform.

Gridley, Ill.—E. J. Klopfenstein has acquired the interest of his partner, George Gramm, in the elevator and coal business conducted under the firm name of Gramm & Klopfenstein for the last 11 years.

Champaign, Ill.—A. Frank Leathers, of the animal feed department of Swift & Co., has been appointed sales manager for the new Swift soybean crushing plant now being erected near Wilbur Heights, this city.

Lisbon Center (Newark p. o.), Ill.—The Farmers Co-op. Grain & Supply Co. has completed painting all of its buildings. A new roof has been provided for the elevator and all sheeting has been renailed.—G. H. R.

Shaws (Amboy p. o.), Ill.—The Charles E. Guffin Elvtr. has been purchased by the Lee County Grain Ass'n, which operates an elevator at Lee Center. Robert Hoyle will act as temporary manager until a permanent manager is chosen.

Pekin, Ill.—George B. Hornish, 62 years of age, a prominent resident of this city, died July 25 in the Methodist Hospital, from a heart attack. Mr. Hornish was connected with the Turner-Hudnut Grain Co. for many years until his retirement two years ago.

Springfield, Ill.—Among the bills approved by the Governor and effective July 1 is the unemployment compensation act, under which employers of one or more are required to pay the state a certain percentage of wages accruing after July 1; but the benefit payments to the unemployed will not be made until 24 months after the first contributions accrue. Employer is not permitted to deduct payments of his contributions from the wages of his employes.

Sheldon, Ill.—The Illinois Commerce Commission has authorized the Cleveland, Cincinnati, Chicago & St. Louis Ry. Co. and the New York Central System to sell to the Bartlett Frazier Co. a parcel of land and elevator here. The consideration was said to have been $30,000.

Lodemia (Fairbury p. o.), Ill.—S. C. Van Horne Grain Co. operating elevators here and at Fairbury, has definitely decided upon the installation of a new 10-ton Soweigh Scale, platform 8x18 feet. The decision has been delayed because of illness of Mr. Van Horne, with pneumonia.—G. H. R.

Hennepin, Ill.—The Norris Grain Co. is having a new scale installed at its elevator at this point, the office will be rebuilt, the gasoline motors replaced with electric and a new grain spout installed. J. W. Abbott, father of the company's elevator manager at Henry, Ill., is the local manager.

Compton, Ill.—The Banks Estate elevator has been leased to the Fraco Milling Co., of Welland, Ill. Art Zimmerman, manager of the Farmers elevator at that point and owner of the milling business, has taken over this elevator with an option to purchase upon the settlement of the estate.—G. H. R.

O'Fallon, Ill.—The former Charles Tiedemann Milling Co., owned and operated by the Tiedemann family, with mills in this city and in Collinsville, Ill., for many years, has been incorporated under the name of Tiedemann Flour Mills, Inc. Geo. W. and C. Ed Tiedemann and E. R. McDonald are the incorporators.

Adeline, Ill.—The S. C. Bartlett Co., of Freeport, has purchased the elevator property here for many years owned and operated by John Anderson. Mr. Anderson will be identified with the lumber business as heretofore and Elmer Schultz will look after the grain business for the new owners. There are now seven elevators in the S. C. Bartlett line.—G. H. R.

Henry, Ill.—Extensive improvements are being made at the river elevator here recently taken over by the Norris Grain Co. and formerly operated by the Turner-Hudnut Co. The elevator was opened late in July, after being closed for over a year. A new 30-ton scale has been installed, having a 10x40-foot platform, and the driveway leading to the north elevator of the property is also being rebuilt. The manager of the elevator is Edson Abbott.

Springfield, Ill.—Illinois employers who have not been able to obtain compensation insurance for employes against industrial accidents and occupational disease thru the ordinary insurance channels will be able to obtain such insurance. This is made possible by the approval by the Illinois Industrial Commission of the formation of a pool of mutual casualty insurance companies and reciprocal exchanges, whose members have agreed to accept a share of such undesirable risks.

Middletown, Ill.—Adam Winterbauer, manager of the elevator of the Fernandes Grain Co., was seriously injured, on July 26, when he caught his left arm between two pulleys, while adjusting the belts at the top of the elevator. He received a deep cut on the nose and a twisted break that required a silver plate to brace the bone. He was on his back between the pulleys when the accident occurred and it was believed that a cotton glove he was wearing caused the accident. He was taken to St. John's Hospital, Springfield.

More Limestone . . .
in your Community,
More Grain . . .
for your Elevator
LEHIGH STONE CO., Kankakee, Ill.
Now "Wholesale Only"

Knoxville, Ill.—Improvements recently completed at the Knoxville Elvtr., under the management of D. D. DeForrest, of Galesburg, whose son, Lavern DeForrest, is in charge of the local office, included installation of a 15-ton truck scale with a 22-foot platform, an electric hoist, enlarged and re-inforced driveway, a new office building and all buildings redecorated.

Pekin, Ill.—The Norris Grain Co., of Chicago, has taken over the grain elevator properties, formerly owned by the Turner-Hudnut Co. and more recently operated by the Rosenbaum Grain Co. The head office for this territory is in Pekin, and elevators are located at Pekin, Chillicothe, Henry, Hennepin, Banner, Manito, Oakford, Parkland, and Kilbourne. The manager here is D. P. Moore, who has been with the old company here for some time. New equipment in the way of larger scales will be provided at the Pekin, Henry and Hennepin elevators. These scales will be 30-ton size, and will have 40x10 platforms capable of holding the largest trailer or trucks. These will be Soweigh Heavy Duty Scales manufactured by Superior Scale Co. Opening of the Norris Grain Co. here also means the beginning of operation of the Illinois River Packet lines.

CHICAGO NOTES

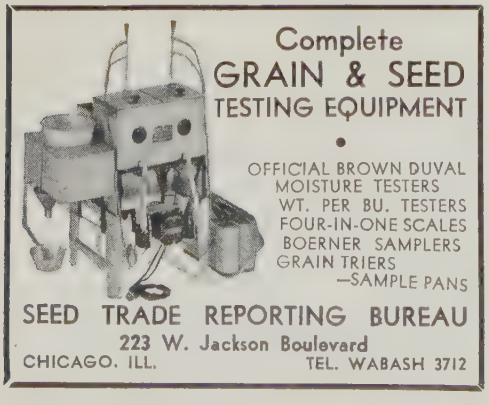
Board of Trade memberships are selling at $4,800, an advance of $50 over the preceding sale.

On the occasion of his 80th birthday, on July 21, Adolph H. Hertz was presented with a radio by fellow members of the Board of Trade, of which he has been a member for 50 years.

Conforming to the settlement approved a year ago by Judge Holly of the federal court, the Illinois Commerce Commission has approved the issue of $1,200,000 bonds and 10,000 shares of stock by the new Chicago Grain Corp. The bonds are to be exchanged for a similar amount of bonds of the old Chicago Elvtr. Properties, Inc., subsidiary of the Rosenbaum Grain Corp., the common stock will be sold for cash, and 1,000 shares of new preferred stock will be exchanged for the outstanding common stock.

New members of the Board of Trade are as follows: Jerome A. Bomash, Horace B. Earle, Raymond A. McMann, Leslie J. Healy, Louis T. Hall (St. Louis, Mo.), Maynard C. Ivison, Wm. R. Proctor, Jerry McCarthy. Memberships transferred: Sidney G. Vigo, Estate of Charles H. Stone, Hamilton K. Wilbur, Major C. Holroyd, Estate of William J. Wollman, Edward P. Field, Henry C. Merritt, Jr., Louis C. Seaverns, Burford L. Porter, Estate of Samuel A. Whitehead, Waters S. Davis, Jr., Stanley Christopher, Samuel P. Mason.

For the first time in many years a member of the Chicago Board of Trade was elected commander of the Chicago Board of Trade Post of the American Legion at its annual meeting held Aug. 4. The new officers are: John C. Crilly, commander; Harry H. Paul, senior vice-commander; Walter Weiss, junior vice-commander; J. H. Kramer, service officer; Louis E. Simons, Board of Trade member, finance officer. C. B. Cunningham and Charles Langlund, directors for two years. Preparations are being made for participation in the forthcoming state convention of the Legion by the Band and Drum and Bugle Corps. This convention, to be held in Springfield Sept. 28-31, has always been the proving grounds for those Legion musical organizations who have hopes of attending the national convention, which this year will be held in New York City.



INDIANA

Monterey, Ind.—A grain cleaner was recently added to the elevator equipment of the Farmers Co-op. Co.

Alexandria, Ind.—I am installing a new Beall rotating warehouse separator in my mill here. —Charles F. Naber.

Shelbyville, Ind.—On July 8 lightning entered thru the service wires in the plant of Fred W. Kennedy, doing only slight damage.

Raber (Columbia City p. o.), Ind.—Construction of a corn crib this fall is contemplated by the Raber Co-op. Co. to increase its capacity for holding ear corn.

Broad Ripple, Ind.—Myron Dawson, owner of the Nora Grain & Feed Co., Nora (r. f. d. 14 Indianapolis), is opening a modern feed and hardware store here.

Pendleton, Ind.—William E. Brown, 78 years old, who for many years operated an elevator here, died recently at the home of a sister at this place.—W. B. C.

Sheridan, Ind.—The Wallace Grain Co. is adding a second Blue Streak Hammer Mill, with magnetic separator and direct connected to electric motor, to its grinding equipment.

Upland, Ind.—Kenneth M. Snyder is operating his elevator (recently purchased from the Farmers Elvtr. Co., as reported in the June 23 Journals) under the name of the Upland Grain Co.

Columbia City, Ind.—Columbia Grain Co., headed by Royal D. Clapp, has bot the coal yard and storage near its elevator, consisting of 10 coal bins, and expects to install a coal conveyor.

Hoagland, Ind.—We have installed a Sidney Overhead Truck Lift, and have put in a dust collector above our dust house to serve both our grain cleaners.—John Witte, Farmers Co-op. Elvtr. Co.

Centerville, Ind.—The Farmers Co-op. Co.'s elevator was entered by burglars, who forced a lock to get in, during the night of July 10, and tools, brushes, house paint, gloves and a lawn mower stolen.

Mt. Vernon, Ind.—Julius Brittlebank, 79 years old, resident manager of the Hudnut Hominy Co. here in the late '80's, and famous as a world traveler, died July 25 in Queen's Hospital in Honolulu, Hawaii.—W. B. C.

Atwood, Ind.—The Etna Lmbr. & Elvtr. Co., locally managed by A. B. Klinefelter, has just completed construction of a 30x73-foot double shed for lumber, driveway passing down its center for convenient loading.

Finly (railroad name Reedville), Ind.—The Standard Elvtr. Co. sustained a fire loss of $2,500 to stock in the elevator, on Aug. 5, and Anna Patten, executrix, sustained a loss of $5,500 to the elevator building.

Evansville, Ind.—Associated with Igleheart Bros., Inc., now is Harold C. Altmansberger, of St. Louis, who was with the Checkerboard Elvtr. Co. of that city, as manager of its wheat department for many years.

Huntington, Ind.—A new 28x28-foot, frame, iron-clad office building, including a 12-foot driveway over the concrete 24-foot deck of a new 20-ton Fairbanks Dial Scale, has just been completed by J. Gelzleichter & Son.

Francesville, Ind.—We have built a new concrete elevator, 30,000 bus. capacity, also have painted the old building. With the new elevator we shall be able to handle the grain more quickly and give better service.—Co-op. Elvtr. Co.

Remington, Ind.—Everett Dailey, former manager of the Farmers Grain & Supply Co.'s elevator at Thornhope (r. f. d. Oak), Ind., has been appointed manager of the Farmers Co-op. Co.'s elevator at this point, succeeding Lee Carl, resigned.

Crown Point, Ind.—We have just put in a new approach to our Crown Point elevator, with a 12-inch concrete retaining wall to take care of the 30,000-lb. loads that come to the elevator. Also just installed an International power unit at our St. John plant.—E. K. Sowash Grain Co., Inc.

Ainsworth, Ind.—Shearer & Son, composed of Howard Shearer and his son, Calvin, is the name of the local grain buying and hauling, and farm supply station formerly known as Shearer & Emery, which partnership was dissolved late last winter. Mr. Shearer is building a 60x20-foot addition to his coal sheds.

Amboy, Ind.—A 10,000-bu. annex has been completed by the Amboy Grain Co., increasing its storage capacity to 25,000 bus.

Hanna, Ind.—We recently installed a McMillin electric truck dump, built on a new cob bin and added two grain bins to our elevator. Will equip our line shafts with roller bearings and expect to install complete feed grinder and mixer as soon as small grain season is over.—Hanna Lbr. & Grain Co., F. L. Yeoman, treas.

Columbia City, Ind.—Grain and hay dealers of this section held a dinner meeting here, sponsored by the Northeastern Indiana Hay & Grain Dealers Ass'n, on the evening of July 29, a chicken dinner being served at 7 p. m. at the Clugston Hotel and the meeting, which followed dinner, being held in the City Hall, next door to the hotel.

Laotto, Ind.—It was the Nathan Grain Co.'s elevator at Laotto (not at Topeka, Ind.) that was recently purchased by the Columbia Grain Co., of Columbia City, from the Lincoln National Bank. This 8,000-bu. elevator on the Pennsylvania Railroad will be overhauled as soon as the new owners can take possession, the coal bins repaired, a truck purchased and a feed mixer installed.

South Whitley, Ind.—The Farmers Elvtr. Co., managed by Walter Penrod, has had all its woodwork freshly painted and the office has been remodeled. Two coal bins will be built this summer, to replace old bins, with modern concrete-floored and lockable coal storage. A dust collector and suction fan will be installed on the elevator leg at an early date to reduce back pressure and dust when grain is being elevated.

Elwood, Ind.—We have recently built a large addition to our former elevator, increasing our grain capacity to 50,000 bus. We are also now equipped with two grinders, mixers, shellers and cleaners, and feel that after the finishing touches have been added we will have one of the best equipped grain and grinding services in the state for a small town elevator. We are erecting a fireproof warehouse on the site of the old elevator.—Kiefer Feed & Supply Co., by Jerry Kiefer.

Simpson (Huntington p. o.), Ind.—Construction work on the new 12,000-bu. frame, iron-clad elevator of the Simpson Grain Co., owned and operated by George and William Pasko, has reached the point where the machinery is being installed. The company's old elevator burned last June 20, and almost before the flames died out the Paskos were ready to start construction of the new and larger house. Machinery being installed includes a No. 50 Blue Streak Hammer Mill, a McMillin Overhead Truck Lift, a Western Corn Sheller, a Western Cleaner, and a Richardson Automatic Shipping Scale.

Hamlet, Ind.—Painting and finishing work only remain to be done on the new 15,000-bu. elevator of the Hamlet Grain & Feed Co., now in operation. Manager C. M. Patty employed several new ideas in the construction, eliminating any direct semblance of a cupola by building the walls straight up to the top roof, providing plenty of room on the cleaner floor at the top of the house, placing ventilating louvres in the walls, and putting the dust house in one corner of the top floor. All machinery is operated by independent motors, controlled from a power panel in the elevator's work-floor.

IOWA

Grimes, Ia.—The Sloan & Pierce Lbr. Co. is the successor to the W. O. Sloan Lbr. Co.

Algona, Ia.—Work on constructing the new E. R. Rising elevator on the Northwestern tracks was started July 19.

Kirkman, Ia.—Fred Ruhs, of Irwin, has leased the elevator in Kirkman and opened it recently. Ronald Munson is manager.

Winfield, Ia.—The Farmers Elvtr. Co. is replanking its elevator driveway floor. C. C. Nelling is the manager.—A. G. T.

Ross, Ia.—Ray Booton, of Audubon, Ia., has re-opened the elevator here which has been closed for the past year.—Art Torkelson.

Ft. Dodge, Ia.—The Hawkeye Grain Co. has been formed by Vernon E. Smith, with the local office of the Farmers National Grain Corp. for over six years. Howard Holmes has succeeded him at the Farmers National office.

Hornick, Ia.—The Farmers Elvtr. Co. is installing a new Atlas rubber covered belt and Salem buckets.

DesMoines, Ia.—New members of the Western Grain & Feed Dealers Ass'n include the Stotts Grain Co., Rockwell City, Ia., W. E. Stotts, owner.

State Center, Ia.—Goodman & Mead recently installed a new electric lift at their elevator, to speed up unloading of trucks and wagons.—A. G. T.

Des Moines, Ia.—Crooked feed salesmen are operating in Iowa. We have several reports.—Ron Kennedy, Sec'y Western Grain & Feed Dealers Ass'n.

Plainfield, Ia.—An elevator having a capacity of 2,500 bus. of corn is being erected by J. Roach Sons on their farm one mile west of Plainfield.—A. T.

Batavia, Ia.—Earl Strain, a farmer living north of Batavia, has purchased the George Peebler interest in the Peebler, Jager & Lowenberg grain elevator here.

Lohrville, Ia.—The DesMoines Elvtr. Co.'s elevator at this station burned the morning of Aug. 4. Contained 10,000 bus. oats and some corn. Loss estimated at $17,000.

Hastings, Ia.—Frank Maxwell's elevator has been improved by the installation of a new Van Ness double safety manlift, the Van Ness Const. Co. making the installation.

Truesdale, Ia.—Hugo Mittag, who has been assistant in the Fenton Farmers elevator for seven years, has been made manager of the Farmers Elvtr. Co.'s elevator in Truesdale.

Little Cedar, Ia.—Improvements recently installed by the Little Cedar Grain & Coal Co. include new Howell Steel Boot Tank, Atlas rubber covered belting and Calumet Buckets.

State Center, Ia.—Geo. Mead, of Goodman & Mead, recently had a slight stroke but at last reports was coming back in very good shape and will soon be back on the job again.—A. G. T.

Donahue, Ia.—Roelk & Goettsch, Inc., has been dissolved and the company is now known as the Roelk Lbr. & Grain Co. Mr. Goettsch retired to handle his other properties.—Art Torkelson.

Breda, Ia.—Meyer Bros. elevator has been sold to A. J. Graham, of Gilbert, Ia., who is moving his family to Breda. A new scale will be installed and other improvements made by the new owner.

Rolfe, Ia.—Rolfe's two grain companies, Davis Bros. & Potter and the Charlton Grain Co. have united into one company, which will be known as the Charlton Grain Co., Inc. B. S. Bryson is manager.

Gruver, Ia.—I. G. Willey, former elevator operator here and at Estherville, Ia., died at his home in Gruver July 23, at the age of 80 years. He had been ill for more than a year.—Art Torkelson.

Tabor, Ia.—Harry Schroeder has bot Good Bros.' elevator here and plans to build additional bins and put in a stock of seeds and stock feeds. Charles Dalton will continue as manager of the elevator.

New London, Ia.—Albert Jericho, manager of the local plant of the A. D. Hayes Co., director, sec'y-treas. and general manager of the company's line of elevators, died July 17. He had undergone an operation on Apr. 19, from which he seemed to be recovering nicely for a time. Later complications developed, which caused his death.

COUNTRY RUN WHEAT

E. M. ROGERS COMPANY
FORT WORTH, TEXAS

BROKERAGE & COMMISSION

MEMBERS
Fort Worth Grain & Cotton Exchange
Grain & Feed Dealers National Ass'n.
Pan Handle Grain Dealers Ass'n.

Rolfe, Ia.—The new Climax Mfg. Co. has been opened in Rolfe and is operated in connection with the Shimon Feed Mill. The new company will manufacture cattle and poultry feeds. M. A. Poleson is one of the owners of the new business.

Walcott, Ia.—Quick thinking saved a possible fire in the head of the Farmers Elvtr. Co's elevator recently. The leg choked and the driving motor failed to throw out on the overload, belt did not slip causing motor wiring to burn out.—A. G. T.

Clarion, Ia.—The Chicago, Rock Island & Pacific Railroad is reported to have filed suit against the Burt Grain Co. at Clarion and Goldfield, asking that the company remove all buildings owned by it and now on the property of the railroad.

Des Moines, Ia.—Under the new Iowa Income Tax Law you must hold out part of any money over $1500 paid to non-residents of Iowa this year. If you are buying landlords' crops, better check up.—Ron Kennedy, sec'y Western Grain & Feed Dealers Ass'n.

Montgomery, Ia.—M. Albert, of the Albert Grain Co., who has been in the grain business at this point for 30 years, has sold his two elevators and his residence property to George H. Anderson, of Estherville, Ia. Possession was given during the latter part of July.

Sulphur Springs, Ia.—We have just completed overhauling our elevators from top to bottom, re-inforced driveway and covered elevators with galvanized iron.—Hansen Grain & Coal Co., P. F. Brown, mgr. [Another report states that Howell sectional steel dump grates have been installed.]

Davenport, Ia.—The Davenport Elvtr. (which was established in 1895) has renewed its articles of incorporation for 20 years, with a capital stock of $150,000. Officers of the company are: Bert Dow, pres.; Chas. Pasche, vice-pres.; Wallace Lerigo, sec'y-treas., and Worrall C. Dow and John S. Dow additional directors.

Sioux City, Ia.—E. C. Palmer was re-elected pres. and a dividend of $1.50 a share was declared at the recent annual meeting of the Terminal Grain Corp., Thomas Ashford, of Homer, Neb., and Eugene Kelly, vice-president R. R. Brubaker, treas., and C. E. McDonald, sec'y, also were elected.—Art Torkelson.

Minburn, Ia.—The Van Ness Const. Co. recently completed a remodeling job on the Farmers Elvtr. Co.'s plant at this point. A new 4000-bu. per hour leg was installed, which included a new Van Ness Roller Bearing boot, a new 7½-h.p. Ehrsam head drive, an 11 inch leg belt and 9x5 Calumet Cups. A new 10 inch distributor was also installed.

Tennant, Ia.—The Cox Grain Co. had its elevator overhauled in preparation for the new crop. A new leg was installed, including a new roller-bearing boot, new 10 inch belt and 9x6 elevator cups. A new distributor was also installed, and a 12 inch screw conveyor installed to return the grain from the annex. The Van Ness Const. Co. had the contract.

Des Moines, Ia.—J. C. (Jack) Westerfield, field sec'y of the Western Grain Dealers Ass'n, stole a march on his grain friends when he and Mrs. Jeanne Lewis, of Des Moines, were united in the holy bonds of matrimony at Minneapolis, Minn., on June 21. Best of luck is wished them on the matrimonial sea.—Art Torkelson, with Lamson Bros. & Co.

Lamoni, Ia.—W. V. Brenizer has repaired, re-equipped and opened the elevator here, closed for two years on account of poor crops, formerly operated by H. T. Rauch, who has owned it for about 30 years. Mr. Brenizer has had it leased for some time, using it in connection with his seed business, but it has not been operating completely. The elevator business will be operated under the name of the Brenizer Grain & Seed Co.

Council Bluffs, Ia.—Following only a month after the appointment of a receiver, a petition for voluntary bankruptcy has been filed in federal court by two members of the board of directors of the Georgie Porgie Cereal Co., of this city. Debts of the company were listed at $18,595 and assets at $11,220. Filing of the petition was said to have been without the knowledge of the receiver, who filed a resistance to the bankruptcy. R. D. Savage, pres. and manager of the cereal company, is recovering at his home from a self-inflicted bullet wound in the head from a suicide attempt the day preceding the appointment of the receiver.—A. T.

KANSAS

Argonia, Kan.—It is reported that a new grain elevator will be erected here soon.

Hutchinson, Kan.—The William Kelly Milling Co. sustained damage to its electrical equipment on July 3.

Cedar, Kan.—Roy McFillin has sold his elevator to the Hart-Bartlett-Sturtevant Grain Co., of Kansas City.

Lyons, Kan.—The Consolidated Flour Mills Co. sustained damage to its stock on July 15 from fire of undetermined origin.

Cuba, Kan.—The Shannon Grain Co. has provided additional capacity and made improvements to the C. B. & Q. elevator here.

Manhattan, Kan.—The Brown-Burton Grain Co. has installed a new 15-ton scale, remodeled its truck dump and improved its elevator driveways.

Mount Hope, Kan.—Rex Bridgeman, of Bentley, has been appointed manager of the Red Star Elvtr. here, succeeding Harold Dow, resigned.

Parsons, Kan.—The Farmers Co-op Ass'n purchased a large brick warehouse building to be used for storage and display of implements and farm machinery.

The Kansas Tax Commission has made a ruling that farmers must pay tax on feed which goes into livestock consumed on the farm, but need not pay it on feed for animals to be sold.

Mt. Hope, Kan.—Wilson W. Tucker, who for 34 years was manager of a grain elevator at this point, died at a Wichita hospital July 6, at the age of 69 years. He had lived at Mt. Hope for 40 years.

St. Francis, Kan.—Having resigned my position with the Colorado Grain & Bean Co. at Sterling, Colo., have accepted the position of miller manager with the St. Francis Milling Co.—Lester Fulkerson.

Four grain elevators along the line of the K. & O. Railway, now being torn up, will be left without a railway to ship grain. They will be taken down by the owners, it is reported, or sold for storage to farmers of the communities.

Savonburg, Kan.—J. H. Viets has bot the office building and scales from Clemings & Wright, whose elevator burned recently, as reported in the Journals last number. Mr. Viets, who operates the lumber yard here, plans the erection of a new elevator to replace the burned one.

DeSoto, Kan.—The new storage annex for the S. R. Zook Grain Co. has been completed and minor repairs made on the elevator. The new building is of cribbed construction covered with galvanized iron and is equipped with a 12 inch screw conveyor for returning the grain from the annex. The Van Ness Constr. Co. did the work.

Williamsburg, Kan.—The Mid-Continent Grain Co., of Kansas City, has had the Van Ness Const. Co. make several improvements in its plant here. This is the first time this station has been operated for the past eight years. A new 15-ton Fairbanks Dump Scale was installed and a new 3-h.p. Bender Electric Truck Lift installed.

Milford, Kan.—The Hart-Bartlett-Sturtevant Grain Co. has had its elevator at this point repaired and put in shape for the wheat harvest. A new driveway floor and grate were installed, also a new Ehrsam Truck Dump and a drive engine. Minor repairs were also made to the company's elevator at Wells, Kan., where the gasoline engine was overhauled and the distributor repaired. The Van Ness Const. Co. did the work at both houses.

ELLIS DRIERS

Known the world over for reliability and perfection of product. Direct Heat — Indirect Heat — And Steam Heat. Also . . .

A complete line of Rotary Driers and Feeders for mill and feed plants.

The Ellis Drier Co.
2444-56 N. Crawford Ave. Chicago, Ill., U. S. A.

Kansas grain and milling companies that recently sustained damage by windstorm to their plants were: Consolidated Flour Mills Co., Metcalf (Bluff City p. o.); M. W. Bulmer, Michigan Valley; Wilson Bros., Quenemo; Mid-Continent Grain Co., Williamsburg; Farmers Co-op. Elvtr. Co., Yates Center; Imperial Flour Mills Co., Forest City.

KENTUCKY

Louisville, Ky.—A 900,000-bu. addition to the Kentucky Public Elvtr. has been completed, giving the house a total capacity of 1,550,000 bus. What is reported to be one of the largest driers in the country is installed in this house, having a drying capacity of 40,000 bus. in a 24-hour day.

LOUISIANA

Eunice, La.—The Eunice Grain Co. has been sold to Kelly, Weber & Co., Inc., of Lake Charles, La. Stewart P. Rozas will have general supervision of the properties here.

MICHIGAN

Grand Ledge, Mich.—The Grand Ledge Produce Co. recently installed a new grain cleaner at its plant.

Adrian, Mich.—The rebuilt elevator and feed mill of the Cutler-Dickerson Co. is receiving grain. The work was done by the Burrell Engineering Co.

Clinton, Mich.—The Atlas Milling Co. is erecting additional grain storage consisting of eight re-inforced concrete bins with a capacity of 40,000 bus., the bins to be 109 feet high and the headhouse 28 additional feet.

Morenci, Mich.—Kellogg & Buck, proprietors of the Morenci Roller Mills, contemplate building a grain receiving and storage addition to their present plant, complete with truck scales, dump and cleaning equipment, with a capacity of approximately 15,000 bus.

Howard City, Mich.—Rex Norris and his son Earl, who for the past two years has managed the Hammerslag & Tinkham elevator here, have formed a partnership and purchased the former Albert O'Donald elevator at this point from Ed Finch and the Howard City State Bank. The new firm of Norris & Son will soon open for business at the elevator.

Fairgrove, Mich.—The Fairgrove Farmers Elvtr. Co., Charles Suprenant manager, held open house July 19, at the elevator purchased just a year ago (the former Earl Smith & Sons elevator), which has been entirely refitted with new machinery and the building painted. New machinery includes an electric truck lift, grain cleaner, bean cleaner, hammer mill with crusher and magnetic separator, feed mixer, corn sheller and a seed mill for handling of clover seed.

MINNESOTA

Minneapolis, Minn.—The Farmers Elvtr. Ass'n of Minnesota will meet in this city Feb. 16 to 18, 1938.

Watson, Minn.—The Farmers Elvtr. Co. recently installed Howell Roller Bearings at its elevator.

Dumont, Minn.—The Farmers Co-op. Elvtr. Co. recently installed a new rubber covered elevator belt.

Chokio, Minn.—The A. F. Clark Elvtr. Co. has appointed Wendell Clark, of Gluek, Minn., manager of its elevator.

Warren, Minn.—The Pioneer Land & Loan Co. is equipping its feed grinder with a Clow-Winter metal and stone separator.

Murdock, Minn.—The Farmers Elvtr. Co. is installing a 20-ton Fairbanks Scale, purchased thru J. H. Harders of R. R. Howell & Co.

Luverne, Minn.—The Farmers Co-op. Elvtr. Co. has installed a new 20-ton scale.

Blue Earth, Minn.—Frank Bros. Feed & Grain Co. opened its elevator here on July 17.

Butterfield, Minn.—The Hubbard & Palmer Co. has appointed Frank H. Neufeld, formerly of Mt. Lake, manager of its local elevator.

Louisburg, Minn.—The National-Atlas Elvtr. Co. has made Thorney Thorsen, who comes from Dawson, manager of its local elevator.

Heron Lake, Minn.—Ed Hodgkinson, of Worthington, has been appointed manager of the St. John & Son elevator, succeeding Martin Ehde.

Stewartville, Minn.—Wendell Lenton, manager of the Farmers Elvtr. Co.'s elevator for over a year, has taken a similar position at Kasson, Minn.

March (Warren p. o.), Minn.—The National-Atlas Elvtr. Co. has installed a new 15-ton scale and widened its driveway. C. M. Ivery is manager.

Kasson, Minn.—The Hixon-Gannon Co. has appointed Wendell Lenton, formerly of Stewartville, manager of its recently purchased elevator here.

Wabasso, Minn.—The Eagle Roller Mill Co., of New Ulm, Minn., is repairing its local elevator and enlarging office of same.—Morton Feed Mill (Morton, Minn.).

Morgan, Minn.—Orin Hier, owner and manager of the Morgan Milling Co., recently left on a two weeks' tour of the West.—Morton Feed Mill (Morton, Minn.).

Hayward, Minn.—The Farmers Elvtr. Co. is installing a new high speed leg equipped with 11-inch, 5-ply Atlas rubber covered elevator belt and 10x5 Calumet Cups.

Welcome, Minn.—The Farmers Elvtr. Co.'s elevator was entered during the night of July 23 and the combination of the safe worked but no money was found by the intruder.

Lake Benton, Minn.—Andrew Hoberg has resigned as manager of the Farmers Co-op. Elvtr. Ass'n's elevator and has been succeeded by Harold Stemple, of Willow Lake, S. D.

Detroit Lakes, Minn.—Detroit Lakes Milling Co., incorporated; incorporators: Roy Floan, Roy Wacksmuth, Nora Floan; to conduct a general milling, grain and feed business.

Claremont, Minn.—A new scale, 9x22 feet, is being installed in the Duncan Elvtr. Co.'s elevator. The office is being enlarged to 20x20, with a partition, to store grain samples and supplies.

Grand Meadow, Minn.—W. H. Pierce, of Rose Creek, has purchased the old Cargill elevator at Grand Meadow and will reopen it in the near future. Arthur Johnson will be manager of the elevator.

Westbrook, Minn.—The Farmers Elvtr. Co. is improving its elevator. The outside of the building is being covered with galvanized steel. The small buildings will be painted and other improvements made.

Hastings, Minn.—During the severe wind storm that struck this community July 25, a large piece of galvanized iron siding was ripped off the west end of the warehouse at the Farmers Elvtr. Co.'s elevator.

Montevideo, Minn.—H. R. Tall has sold his elevator to the Pacific Grain Co., of Minneapolis. Mr. Tall will open an office here for the McCabe Bros. Commission Co., representing the company in the local territory.

Wanamingo, Minn.—The Farmers Elevator is equipping its plant with a Clow-Winter direct connected geared head drive and 10-horse Fairbanks-Morse Motor. This company recently built a 12,000-bu. addition to its elevator.

Minneapolis, Minn.—William F. Dalrymple was elected pres. of the Minneapolis Grain Commission Merchants Ass'n at its recent annual meeting, succeeding R. R. Tennyson; C. G. Williams was elected vice-pres., and J. H. Enary was re-elected sec'y.

Albert Lea, Minn.—The Speltz Grain & Coal Co. has improved the equipment of its elevator by the installation of a new 20-ton scale having a 22-foot platform, a new dump and direct loading spout to cars. A new 18x80-foot coal shed has been built also, with concrete floors thruout. S. E. Alm is manager of the elevator.

Wabasso, Minn.—The Western Grain Men's Ass'n held its July meeting in this city, John Evans, Montevideo, pres. of the ass'n, occupying the chair. The meeting opened with remarks from the mayor and a short musical program. Talks were given by A. F. Nelson, sec'y of the Minnesota Farmers Elvtr. Ass'n; Al Hansen, supervisor of local grain warehouses for the Minnesota Railroad & Warehouse Commission, and Oscar Olson, pres. of the Minnesota Farmers Ass'n.

DULUTH LETTER

The Capitol Elvtr. Co. held its annual meeting Aug. 3. Chas. H. McCarthy and T. G. McCarthy, of Minneapolis, were in attendance.

Arthur B. Clark, superintendent of the Great Northern elevator, Superior, Wis., tendered his resignation July 31. Mr. Clark has held that position for 34 years.—F. G. C.

M. E. Jerdee, chief state grain inspector, held a meeting with Duluth grain men Aug. 6, relative to establishing Grand Forks as a sampling point, but after a general discussion it was the consensus of the local grain trade to be detrimental to this market and was not approved.—F. G. C.

Considerable corn is being imported from Argentine for consumption in this country, due to last year's shortage. Since the opening of navigation to date, Aug. 7, arrivals have reached 2,306,080 bus. and more is expected to be received before the movement ceases and the domestic crop becomes available. There remains in store but 195,000 bus., as rail shipments have been made about as fast as the corn arrived. Distribution was to various points thruout the Northwest.—F. G. C.

MISSOURI

Aurora, Mo.—The Majestic Flour Mill sustained damage to its electrical equipment recently.

Windstorm damaged the elevator of O. M. Robison, Lathrop, Mo., and of the Slater Mill & Elvtr. Co., Slater, Mo., last month.

Clinton, Mo.—A new 20-ton scale, with a 9x34-foot platform, has been installed by the Farmers Elvtr. & Supply Co., W. S. Herring manager.

Kansas City, Mo.—A loud speaker system was recently installed on the floor of the Kansas City Board of Trade. Amplifiers are placed at various points on the floor.

Kansas City, Mo.—Applicants for membership in the Kansas City Board of Trade include Howard Kellogg, Jr., of Spencer Kellogg & Sons, Inc., Buffalo, N. Y., on transfer from R. A. Jeanneret.

Clinton, Mo.—The Mann Grain & Feed Co. has installed a new 15-ton scale, replacing its old one, also a new electric truck lift. All the elevator spouting has been replaced with new and larger spouts.

St. Louis, Mo.—Dannen Grain & Milling Co. has opened an office in the Merchants Exchange and will do a general grain and feed business. Dwight L. Dannen, formerly with the same firm at St. Joseph, Mo., is manager.

Hamilton, Mo.—M. Abrahams, who comes from Marshall, Mo., where he was with the Dannen Hay & Grain Co., has been made manager of the H. H. Green Mill & Elvtr. here and has moved his family to this point.

St. Louis, Mo.—At a dinner given in his honor at the Norwood Country Club Aug. 3, Harold Altmansberger, who is leaving Checkerboard Elvtr. to take charge of the wheat department of Igleheart Bros., Inc.," at Evansville, Ind., was presented with a watch by members of the exchange.

Springfield, Mo.—Caleb Lipscomb, 79-year old pres. of the Lipscomb Grain & Seed Co., fired a shotgun at a group of strikers in front of his plant, on Aug. 2, and wounded, tho not seriously, a man who was among a group of pickets who were gathering up stones, presumably for another stoning of Lipscomb's mill. Mr. Lipscomb had been carrying on negotiations with the strikers' union, seeking a compromise.

STRATTON GRAIN CO.
MILWAUKEE, WIS.
CHICAGO, ILL. ST. JOSEPH, MO. NEW YORK, N. Y.
MILL FEEDS — FEED PRODUCTS — BY-PRODUCTS
Future Orders Solicited

Following are the new members of the Missouri Grain Dealers & Millers Ass'n: Crawford Bros. and Lawson Milling Co., Seneca; Garoutte Milling Co., Goodman; Diamond Elvtr., Diamond; Boyd-Kelso Milling Co., Joplin; R. R. Carter Mill & Elvtr., Jasper; Mt. Vernon Farmers Exchange, Mt. Vernon; Miller Milling Co., Miller; Tindle Milling Co., Springfield; Rothermel Bros., Springfield; Republic Hatchery, Republic, and Ozark Flour & Feed Co., Aurora.

MONTANA

Williams, Mont.—A new elevator is being erected here, to replace a fire loss of last fall.

Grass Range, Mont.—The Atlantic Elvtr. Co. has reopened its elevator in Grass Range, with A. H. Kuhry as manager.

Three Forks, Mont.—The elevator of the Three Forks Feed & Grain Co. was broken into during the night of July 12 and some oil and a revolver stolen.

Malta, Mont.—R. P. Misener has resigned as manager of the Equity Co-op. Ass'n of Phillips County, also known as the Farmers Elvtr. & Oil Station. E. C. Brown has succeeded Mr. Misener.

Deer Lodge, Mont.—The local elevator of the Missoula Merc. Co. has been improved at a cost of $4,000. The structure has been painted, a large warehouse erected and the office enlarged.

NEBRASKA

Wakefield, Neb.—Clifford Busby has bot the Dolphin-Jones elevator here.

Indianola, Neb.—The Smith-Reiter Co. is installing a large grain and seed cleaner, purchased from R. R. Howell & Co.

Arapahoe, Neb.—The Arapahoe Milling Co. will rebuild its plant that burned recently, as reported in the Journals last number.

Ohiowa, Neb.—The Advance Milling Co. has been sold by C. B. Gray, who is now superintendent of the Acme Mills & Elvtr. Co.'s plant at Friend, Neb.

Motala (Minden p. o.), Neb.—Extensive repairs are being made by the Motala Farmers Grain Co. including remodeling of elevator driveway. Eck Olsen did the work.

Omaha, Neb.—The Continental Export Co. opened an office here on Aug. 9, with Adolf Mayer in charge. The company has leased the 1,000,000-bu. Missouri Pacific Elvtr.

Grafton, Neb.—The Farmers Terminal Elvtr. Co. of Omaha has had a new 7½-h.p. Ehrsam Head Drive installed in its elevator at this point. The Van Ness Const. Co. made the installation.

Lexington, Neb.—The Lexington Mill & Elvtr. Co. is installing a large diesel engine, with which it plans to generate electricity for power and heat at its plant. The engine has five cylinders and is 375 h.p.

DuBois, Neb.—W. H. Hilt has had his elevator at this point completely overhauled. The driveway was widened and a new 3-h.p. Bender Electric Truck Lift installed. The cupola was raised and covered with galvanized iron. A new boot was installed and the leg repaired. A new driveway grate was installed and office repaired by the Van Ness Const. Co.

ELEVATOR SUPPLIES
FEED PLANTS
K. C. ELECTRIC OVERHEAD DUMP
K. C. ELEVATOR HEAD DRIVE
GRINDERS — MIXERS
Complete Stocks—Prompt Shipments
General Mill Equipment Co.
2021 Pennsylvania Ave.
KANSAS CITY, MO.

Funk, Neb.—The Crowell Grain Co. has reconditioned its elevator bins and renailed metal roof of its elevator, Eck Olson doing the work.

Gering, Neb.—The Tarkio Molasses Feed Co. is planning to erect a warehouse and office building in Gering. The office building will be 16x20 feet and the warehouse will be large enough to store several carloads of the company's products.

Schuyler, Neb.—Gerald Ehrnberger will himself operate the elevator here which he has leased to the B. C. Christopher Co. for the past year, and he will also manage the house at Rogers. The elevator at Columbus, Neb., to which Mr. Ehrnberger has devoted his time, will be managed by his son Lumir, who has been associated with him there for several years.

Beatrice, Neb.—Attorneys for the Pease Grain & Seed Co., of this city, have filed a brief in the Nebraska Supreme Court asking reversal of a judgment of a county district court awarding $5,000 to Minnie M. Knoche as the result of her husband's death in an auto accident, which occurred about a year ago as the result of a collision between an auto driven by Knoche and a truck owned by the grain company.

NEW ENGLAND

Boston, Mass.—Jacques A. Davis, of New York City, is an applicant for membership in the Boston Grain & Flour Exchange.

Taunton, Mass.—Fred A. Fountain, incorporated; capital stock, $15,000; incorporators: Fred A. Fountain, Alton L. Brown and Edwin R. McCormick; to deal in grain, hay and feeds.

NEW YORK

New York, N. Y.—James Harper Hopper, at one time in the grain and feed business, retiring 30 years ago, died at his home in Brooklyn on July 23, at the age of 93 years. He was a Civil War veteran.

New York, N. Y.—New members of the New York Produce Exchange include the following: Charles J. Hughes, Conrad F. Sauer, Jr., Robert Stern. Associate members are: Colquitt H. Lane, Wm. C. Lipscomb and Avery P. Payne.

Rochester, N. Y.—The Rochester Distilling Co. is having storage for 35,000 bus. erected, consisting of two 22x60 circular and two interspace bins. Pouring of the walls started Aug. 5. The A. Clemans Const. Co. has the contract.

BUFFALO LETTER

Buffalo, N. Y.—Applicants for membership in the Corn Exchange include Calvin G. Ireys.

Earl E. McConnell has moved to Springfield, O. He and his son Wright operate two elevators in that state. Mr. McConnell has been well known to the grain and feed trade of this city and also of Ohio for many years.

Raymond E. Endress has been transferred by the Archer-Daniels-Midland Co. from the company's Toledo office, where he was manager, to its office in this city, to succeed Edwin W. Stuhr, who resigned recently, as reported in the Journals last number.

After being with the American Elvtr. & Grain Division of the Russell-Miller Milling Co. for eight years, Francis E. Smith has become associated with the Southwell Grain Corp., with offices in the Chamber of Commerce Bldg. The Russell-Miller Co. has transferred Calvin G. Ireys from its New York offices to succeed Mr. Smith here.

NORTH DAKOTA

Pillsbury, N. D.—The Pillsbury Elvtr. Co. sustained wind damage to its elevator last month.

Walhalla, N. D.—E. E. Loftus has resigned as agent for the Farmers Union Elvtr. Co. of Walhalla.

Barton N. D.—Art Krefting has taken over the management of the Imperial Elvtr. Co.'s elevator here.

Blabon, N. D.—The International Elvtr. Co. has appointed Mr. Enockson manager of its local elevator.

Almont, N. D.—A truck was recently backed into the elevator driveway doors of the Russell-Miller Milling Co.

Lakota, N. D.—New high speed buckets are being installed by the National-Atlas Elvtr. Co. in its local house.

Jamestown, N. D.—New members of the North Dakota Farmers Grain Dealers Ass'n include the Farmers Co-op. Ass'n, of Cleveland, N. D.

Westhope, N. D.—R. F. Anderson, of Valley City, has taken over the management of the Cargill elevator here.

Roth, N. D.—Alf Wall, manager of the National-Atlas Elvtr. Co.'s local elevator for the past two years, has resigned.

Hannah, N. D.—The Hannah Grain Co. is equipping its elevator with new Atlas rubber covered belting and Calumet high speed buckets.

Des Lacs, N. D.—Sever Same, of Minot, has taken over the management of the Farmers Elvtr. Co.'s elevator here, succeeding David Coutts.

Eckelson, N. D.—Cargill, Inc., has appointed Adam H. Cranston, former manager of an elevator at Antler, N. D., manager of its local elevator.

Barlow, N. D.—Lorenzo Martin, of Bottineau, N. D., has moved to Barlow where he has been employed as grain agent by the Victoria Elvtr. Co.

Great Bend, N. D.—Clinton McFadgen, former Wimbledon elevator manager, is manager of the newly-opened St. Anthony & Dakota elevator here.

Walhalla, N. D.—The Powers Elvtr. Co.'s elevator is being repaired and a scale installed. It is now owned by the International Elvtr. Co.—International Elvtr. Co.

Wheelock, N. D.—The Occident Elvtr. Co.'s local elevator has been closed and Ed Siverson, who has been in charge for many years, has been transferred to Foxholm, N. D.

Lansford, N. D.—The National-Atlas Elvtr. Co. has transferred Earl Heller, manager of its Sherwood, N. D., elevator for the past three years, to this point to manage its local elevator.

Devils Lake, N. D.—The W. H. Dickinson Co., Minneapolis grain commission and brokerage house, opened an office in this city on Aug. 2, with J. H. Alberta, formerly of Minot, as manager.

Des Lacs, N. D.—F. B. Becker Co., of Des Lacs, has purchased the elevator known as the Farmers National elevator from the United States Government. Elmer Johnson will be manager.

Ross, N. D.—The Farmers Elvtr. Co. is improving its elevator legs with new 12-inch Atlas rubber covered belting and high speed cups. A Howell roller bearing steel boot is also being installed.

Leeds, N. D.—The St. Anthony & Dakota Elvtr. Co. has transferred A. R. Olson, manager of its local elevator for the past two years, to Nome, N. D., and has made Swen Kjonaas, of Coulee, N. D., manager here.

Rugby, N. D.—J. H. Kline has resigned his position as manager of the elevator in Rugby and will move to Parshall, where he will be employed in the Farmers Elvtr. Co.'s elevator. He was manager of the Farmers elevator in Parshall before coming to Rugby.

Mandan, N. D.—M. J. Wehner, of Linton, has been appointed manager of the Occident Elvtr. Co.'s local elevator, to succeed M. E. Schafer. Mr. Wehner has been manager of the Occident elevator at Linton for the past six years and previously had served as manager for the company's elevator at Richardton for seven years.

J. H. Teasdale Commission Co.
Established 1848
Four Generations have shipped their grain to Teasdale. Almost a century of efficient grain service.
Consignments Solicited
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MOISTURE TESTERS
Tag Heppenstall Moisture Meters
and a complete line of grain and seed testing equipment. Every item guaranteed up to government specifications.
HARRY B. OLSON ASHLAND BLOCK CHICAGO, ILL.

Hebron, N. D.—The Occident Elvtr. Co. has purchased the Powers Elvtr. Co.'s elevator in Hebron. W. A. Schoenborn will take over the management of the elevator, succeeding A. R. Fenske.

Steele, N. D.—The Occident Elvtr. Co. has taken over the Powers Elvtr. Co.'s holdings in North Dakota and Montana. At the local elevator, which the Occident Co. took over July 20, Foye Harris, Powers manager for a number of years, has been retained in that position.

Kenmare, N. D.—The Kenmare Feed Mill is being repaired and five new bins, machinery and scales are to be installed. An additional story is being added to the structure and a new feed grinder will be installed in the basement. Bernard Larsen is proprietor of the mill.

Umbria (Mylo p. o.), N. D.—The Minnekota Elvtr. Co. has appointed Edwin Anderson manager of its local elevator. Mr. Anderson has been second man at the elevator of the Farmers Elvtr. Co. at Willow City, N. D., for several years. He has moved his family to Umbria.

Anamoose, N. D.—The Farmers Co-op. Elvtr. Co. is motorizing its plant. New equipment will include a Clow-Winter direct connected geared head drive with 7½-h.p. Fairbanks Motor, and a 2-h.p. Fairbanks Motor for the compressor drive. All machinery was furnished by R. R. Howell & Co.

Rolla, N. D.—The Farmers Grain Co. has purchased the Great Western Grain Co.'s 25,000-bu. elevator, which has been owned for several months by the St. Anthony & Dakota Elvtr. Co. Acquisition of this elevator doubles the storage capacity of the Farmers Co. A. W. Poyzer is manager.

OHIO

Arcadia, O.—L. R. Good & Son's elevator was robbed of about $10 on July 14.

Jamestown, O.—Oliver Grain Co. recently installed a Sidney Electric Truck Dump.

Troy, O.—The Ed S. Falkner Grain Co. has installed a 20-ton Bonded Motor Truck Scale with a 9x20-foot platform.

Toledo, O.—The Farmers Grain Dealers Ass'n of Ohio will hold its convention in this city in 1938, on Feb. 22 and 23.

Convoy, O.—Andrew Dowler, of the Dowler Elvtr., has purchased a 15-ton Bonded Motor Truck Scale with a 24-foot platform.

Louisville, O.—The Newsome Feed & Grain Co. has been incorporated; capital stock, $125,000; incorporators: E. J., J. A. and M. Dougherty.

Lima, O.—The 58th semi-annual fall meeting of the Ohio Grain, Mill & Feed Dealers Ass'n will be held in this city Oct. 6, at the Norvel Hotel.

Gratis, O.—The Floyd Milling Co., of Lewisburg, O., has opened a feed grinding and mixing business here, in what was formerly a tobacco warehouse.

Sidney, O.—J. W. Simmons has completed his new feed mill, same being equipped with all new, modern machinery furnished by the Sidney Grain Mchy. Co.

Ashland, O.—Ashland Equity Exchange has installed a corn and grain cleaner, seed cleaner, drags, drives, motors and miscellaneous equipment purchased of the Sidney Grain Mchy. Co.

Ohio elevator and mill plants that sustained wind damage last month were Graber Milling Co., Canton; W. G. Holtshouse's elevator, New Winchester (Martel p. o.); Versailles Grain Co., Versailles.

Findlay, O.—The 18,000-bu. re-inforced concrete elevator for the Kirk Milling Co., reported in the Journals last number as having been completed, has two stands of elevators and a Eureka Receiving Separator, the elevators being steel. The A. Clemans Const. Co. had the contract.

Columbus, O.—Pres. O'Brien, of the Ohio Grain, Mill & Feed Dealers Ass'n, has appointed the following com'ites to serve for the coming year: Arbitration—S. L. Rice, Metamora, chairman; John H. Motz, Brice; H. L. Hockman, Canal Winchester. Legislative—Elton Kile, Kileville, chairman; C. A. Hiegel, Leipsic; F. E. Watkins, Cleveland. Transportation—C. R. Halter, Cleveland, chairman; D. J. Schuh, Cincinnati; R. F. McAlister, Columbus.

Dayton, O.—A re-inforced concrete building to house a Randolph Grain Dryer for the Victor Herter Milling Co. is being erected by the A. Clemans Const. Co., whose contract calls for the building, installation of the dryer and the furnishing and installation of the elevating and conveying machinery.

Maumee, O.—Due to the condition of Harold Anderson, who was injured in an auto accident recently, while driving to his new 1,000,000-bu. elevator here from his home, as reported in the July 14 Journals, it has been decided to lease the new elevator property to the Continental Grain Co., negotiations for which have been concluded. The elevator, built for the Anderson Elvtr. Co. by the Macdonald Engineering Co., is said to be one of the most modern elevators in the United States. Clarence Fivian, formerly in charge of the Continental Grain Co.'s business at Columbus, O., will be the manager for the lessee.

OKLAHOMA

Walters, Okla.—Have just installed a new feed mixer.—D. F. Wegener Grain Co.

PACIFIC NORTHWEST

Palouse, Wash.—R. W. Wallace is installing a Winter Pneumatic Truck Lift.

Uniontown, Wash.—New high speed cups are being installed by the Uniontown Co-op. Ass'n.

Scio, Ore.—A two-ton feed mixer has been installed in the Densmore Mill, replacing a smaller one.

Sherwood, Ore.—A feed mixer operated by a 5-h.p. motor has been installed in the Fred Martin Feed Mill.

Wendell, Ida.—New feed grinding and storage rooms have been completed at the Commons plant near the elevator.

Bonners Ferry, Ida.—Percy Leonard is erecting an addition, 50x50 feet, to his feed mill and warehouse building.

Kendrick, Ida.—The Mark P. Miller Milling Co. has leased the Idaho Bean & Elvtr. Warehouse and put George Leith in charge.

Lewiston, Ida.—An office has been opened in this city by Cargill, Inc., with Mr. Rudolph, formerly with Kerr Gifford & Co. here, in charge.

Cottonwood, Ida—The Lewiston Grain Growers are equipping their local plant with a new high speed leg fitted with Atlas rubber covered belting and V buckets.

Almira, Wash.—A. M. Jansen, for the past 10 years with the Martin Grain & Milling Co., Cheney, Wash., has been appointed manager of the Almira Grain Growers, Inc.

Buhl, Ida.—The Buhl Seed & Grain Co. started work at once repairing the fire damage to its elevator on July 15. The loss, estimated at $10,000, was covered by insurance.

Wilbur, Wash.—The James Llewllyn grain warehouse has been equipped with electric service and at the warehouse of the Grain Growers a 40x70-foot machine shop has been erected.

Oroville, Wash.—An idler on a feed mill running hot in the plant of the Oroville Grain Co. is reported as being the possible cause of a fire which slightly damaged some stock on July 19.

Halsey, Ore.—A dust collecting system has just been installed in the O. W. Frum Grain Warehouse, also a magnetic separator installed at each chopper, and sack cleaning equipment, which recleans the grain bags.

Lind, Wash.—After being manager of the local Seattle Grain Co.'s warehouse here for 34 years, John Krehbiel has resigned and will retire from active business. He has been succeeded by Jess Galbreath, of Cunningham, Wash.

Cottonwood, Ida.—The Cottonwood Elvtr. Co.'s new, concrete, 130,000-bu. elevator, reported in the Mar. 24 Journals as under construction, has been completed by Alloway & Georg. It consists of 11 bins, 100 feet high, and a 32-foot headhouse.

Johnson, Wash.—The elevator of the Johnson Union Warehouse Co. is being equipped with a direct-connected Clow-Winter Geared Head Drive and a 7½-h.p. Fairbanks-Morse Motor, also new Atlas rubber covered elevator belt and high speed buckets.

Palisades, Wash.—The Centennial Milling Co. is constructing a grain warehouse here. The Seattle Grain Co., the Seattle branch of the Centennial Milling Co., will have jurisdiction over this warehouse.

Seattle, Wash.—The North Pacific Grain Growers, Inc., opened an office in this city on Aug. 2, with Frank Ford, formerly with the Farmers National Grain Corp., as manager, his assistant being Jim McCormack, formerly manager of the Seattle Grain Exchange.

Corvallis, Ore.—The old Fischer Flouring Mill here has been bot by E. E. Eastwood, of Lewiston, Ida., and is now operating as the Valley Milling Co. The plant had been closed recently after operating for a year and a half. A grain cleaner and a seed cleaner have been installed.

Delaney (Starbuck p. o.), Wash.—A warehouse belonging to the Columbia County Grain Growers was demolished July 27 by a sudden hail storm which left about 600 sacks of wheat intact and partially covered by the roof. Most of the roof was blown 60 feet across the railroad tracks.

Bonners Ferry, Ida.—The Idaho Boyd-Conlee Co. is erecting a large warehouse and pea cleaning plant joining the company's elevator and office near the Great Northern station. The new building will be 304x54 feet, part of it one story and part of it two stories. It will probably take three months to complete the building.

Bellingham, Wash.—The Port Commission's new grain elevator at the Municipal Dock (built for the Washington Co-op. Egg & Poultry Ass'n) was first used for bulk grain the last week in July. It was used for the elevation of sacked grain late in May, as reported in the June 23 Journals. The capacity of the elevator is 1,800 tons of bulk grain and 2,000 tons of sacked grain. The Port will receive an annual rental of $3,500 for the use of the elevator.

Kerr, Gifford & Co., grain concern of Portland, Ore., is reported to have withdrawn from business in the Inland Empire except at Walla Walla, Wash., and Pendleton, Ore. The grain warehouses at Enterprise and at Joseph, both in Wallowa County, Ore., have been sold to the newly formed Hugh Martin Grain Co. (reported in the July 14 Journals), the organizer of which was formerly in charge of this department for Kerr, Gifford & Co. C. H. Zurcher remains manager of the Enterprise branch of the Martin Co. and W. G. Beith is in charge at St. Joseph. The new company also has taken over the Imbler, Ore., branch.

PENNSYLVANIA

Avonia (r. d. Fairview), Pa.—Hit by a bolt of lightning shortly before midnight, on July 15, the Oriental Mill at this point was destroyed by the ensuing fire; loss, $30,000; partial insurance. The three-story structure was owned by Thomas Raine and had been leased and operated for several years by Fred Grossholt, who had a large stock of feed in the building at the time of the fire, but little grain. Building and equipment had been modernized several years ago and electric power installed.

SOUTH DAKOTA

Clark, S. D.—A new grain dump is being installed at the National-Atlas Elvtr. Co.'s elevator.

Cresbard, S. D.—The Cresbard Co-op. Elvtr. Co. sustained wind damage to its plant late in July.

Canning, S. D.—The Blunt Grain Co. has appointed James Curran manager of its elevator at this point.

Frankfort, S. D.—The local National Atlas Elvtr. Co.'s elevator has been closed and the manager, A. B. Kraft, transferred to Estelline.

Hazelton Siding (not a p. o.), S. D.—The Steele Investment Co.'s east elevator and stock were destroyed by fire July 25.

Adelaide (r. d. Conde), S. D.—Aubrey Evans has taken over the management of the two grain elevators here. H. H. Johnson, former manager, resigned.

Hurley, S. D.—The driveway of the Farmers Union Elvtr. is being improved with the installation of a double set of Howell Sectional Steel Dump Grates.

Ethan, S. D.—The Farmers Elvtr. Co. is improving its receiving facilities with a new high speed leg equipped with Atlas rubber covered belting and Calumet Buckets.

Castlewood, S. D.—The Farmers Grain & Produce Co. is fitting its plant with a Clow-Winter Direct Connected Geared Head Drive powered with a 7½-horse Fairbanks-Morse Motor.

Butler, S. D.—Ralph Bagley, who has been manager of the Bagley Elvtr. Co.'s elevator here resigned his position and has moved to Minneapolis, where he will be employed in the Bagley elevator office.

Rapid City, S. D.—Tri-State Milling Co. is completing its 250,000 bu. elevator and will receive bids Aug. 20 for a 600-bbl. mill. Plans were made by Horner & Wyatt, who will supervise construction.

Fedora, S. D.—A. C. Cohrt, of Mitchell, has purchased the Farmers Elvtr. Co.'s elevator which has been closed since 1935. The building has been repaired and William O'Neil has been retained as manager.

Ipswich, S. D.—Frank Witz, manager of the elevator of the Osborne-McMillan Co. for 23 years, resigned recently to enter the coal business for himself, and has been succeeded at the elevator by Howard Samp.

Wall, S. D.—The Tri-State Milling Co., of Rapid City, S. D., has placed orders with R. R. Howell & Co. for Waukesha Power Units to be installed in its stations here and at New Underwood (railroad name Underwood), S. D.

Lennox, S. D.—The former Schneiderman elevator, recently bot by Cargill, Inc., as reported in the June 23 Journals, has been improved by installation of a 20-ton scale and a rebuilt and enlarged driveway. Gus Aulwes is local manager.

Mitchell, S. D.—The Erion Packing Co. is making general improvements in its plant. New equipment will include a high speed elevating leg with 13-inch, 4-ply Atlas rubber covered belting and 12x7 Calumet Cups, also new Howell Boot.

Humboldt, S. D.—A dinner was recently held in the Masonic Temple to honor Sidney Angus, manager of the Hubbard & Palmer Co.'s local elevator, who has been with that company for 35 years. Frank Crandall, pres. of Hubbard & Palmer, presided at the dinner.

Davis, S. D.—The National-Atlas Elvtr. Co. has completed its new 40,000-bu. elevator at this point, details of which were given in the May 12 Journals. The T. E. Ibberson Co. had the contract. Two old elevators operated here by the National-Atlas Co. were razed.

Groton, S. D.—Work has been started on extensive improvements to the Bagley Elvtr. Co.'s local plant. A new feed grinding plant and a new 20-ton scale will be installed, a new office building erected and other improvements made. The construction work is being done by the T. E. Ibberson Co. E. A. Rapp is manager of the elevator.

Yankton, S. D.—Fire, believed to have originated from an electrical short circuit, severely damaged the feed mill of the Farmers Elvtr. Co. at 1:30 a. m., July 28. New wiring had been installed in the mill the day before because of trouble getting power. The fire was confined to the feed mill building on the west side of the main, concrete part of the elevator.

SOUTHEAST

Lebanon (Abbeville p. o.), S. C.—The plant of the Prince Milling Co. was gutted by fire on July 14; loss, estimated at $10,000.

Chipley, Fla.—I am installing a shuck shelling machine at my mill and elevator, which makes it a modern corn handling elevator.—J. J. Daring.

Pantego, N. C.—L. R. Pilley's new 10,000-bu. elevator (reported in the July 14 Journals as under construction), said to be the first real elevator in this state, will be equipped with a Randolph oil-electric drier. The Sidney Grain Mchy. Co. has the contract for construction.

Staunton, Va.—The Beverley Feed Mills plant, gutted by fire July 4, as reported in the July 28 Journals, is being rebuilt and is expected to be in operation again late this month. The company bases its name on the fact that Staunton was called Beverley Mills in the early days.

TENNESSEE

Memphis, Tenn.—Fire damage to the amount of $1,500 was done at the plant of the West Tennessee Grain Co. at 2:30 a. m., July 25, the blaze being confined to a shuck house. Most of the damage was to machinery.

Nashville, Tenn.—A small fire of electrical origin slightly damaged the property of the Cherokee Mills, Inc., last month.

TEXAS

Ft. Worth, Tex.—Applicants for membership in the Ft. Worth Grain & Cotton Exchange include A. A. Hart.

Giddings, Tex.—The Fairmont Creamery is constructing a grain elevator here, to have a capacity of 65 carloads of grain.

Nederland, Tex.—Koelemay Grain Co., incorporated; capital stock $5,000; incorporators: M., Mrs. Anna and John Koelemay.

Ft. Worth, Tex.—Adolph Mayer, from the New Orleans office of the Continental Grain Co., is now handling the company's business here, Leo Cusick, who has been representing the company on this market recently, having returned to Winnipeg, Man.

UTAH

Moroni, Utah—The Jensen Milling Co. has placed an order with R. R. Howell & Co. for a large grain and seed cleaner.

WISCONSIN

Manitowoc, Wis.—Two grain elevators here of the Bartlett-Frazier Co., which have been closed for more than a year, are being reopened.

Fennimore, Wis.—On July 25 at 9:15 p. m. a boxcar caught fire and communicated to the warehouse building of the Fennimore Farmers Warehouse Co.

Melrose, Wis.—The Melrose Mill has been bot by S. Schuster, who has a feed store here. After repairing is completed, it will be operated by Mr. Schuster as a feed mill.

Cadott, Wis.—The Clarke-Svoma feed mill burned late in July; loss, estimated to be several thousand dollars. It has not been decided whether or not the mill will be rebuilt.

Baldwin, Wis.—George Nyeggen has purchased the interest of his partner, Chris Johnson, in the Nyeggen & Johnson grain elevator business. Mr. Nyeggen will continue to operate the elevator on the same basis as in the past.

Augusta, Wis.—The Augusta Flour & Feed Co. is converting into a garage and warehouse a building adjoining its present building. The first floor will house the trucks and cars and the second floor will be used for a warehouse.

Larsen, Wis.—One of the most up-to-date and efficient feed processing plants in the country is now being built for the Larsen Co-Op. Co. The construction is in charge of A. W. Carter, from plans and specifications prepared by the engineering department of R. R. Howell & Co. Power will be supplied by an 80-h.p. diesel engine, connected thru friction clutch controlled line shafts to the various units of the plant. Grinding will be handled by an Ajacs hammer mill with variable feeder, and a 24-inch attrition mill. A 3,000-pound Daisy Horizontal Revolving Drum Mixer will be used for blending. Two magnetic scalpers will protect the grinding units. All elevating legs will be equipped with Atlas rubber belting and Calumet high speed cups. A Howell Duplex Safety Manlift will provide ready access from floor to floor. All machinery with the exception of the grinding mills, will be driven from line shafts through V belts or roller chains. Distribution of the grain and feeds from the receiving elevators to the individual bins will be thru Howell radial distributing systems. A unique feature of this modern plant will be a mechanically-operated conveyor for handling bulk grain directly from the cars into the building. All machinery and equipment is being furnished by R. R. Howell & Co. The plant is expected to be in operation by Aug. 15.

MILWAUKEE LETTER

Wm. N. Knauf, Chilton, Wis., has been elected to membership in the Milwaukee Grain & Stock Exchange.

The Central Retail Feed Ass'n, headquarters this city, has become an affiliate member of the Grain & Feed Dealers National Ass'n.

J. M. Reibs, Jr., founder and president of the Reibs Co., grain merchant and maltster, died July 29, at his home in this city. He was the oldest active member of the Milwaukee Grain & Stock Exchange.

The Pabst Brewing Co. has bot vacant property on which will be erected a $50,000 plant for the cleaning of barley. Officials of the company are quoted as saying that the brewery needs additional elevator capacity.

The Milwaukee & Western Malt Co.'s storage elevator is rapidly taking form. The building is being erected by the Burrell Engineering Co. The storage annex will accommodate 500,000 bus. of barley, the head house 300,000 bus. The pouring of the concrete walls was started Aug. 9.

WYOMING

Sundance, Wyo.—C. D. Roberts is building an annex, 25x100 feet, to his feed mill.

Indiana Poultry Tour

Lafayette, Ind.—The 1937 Indiana State Poultry Tour will be held August 24, 25 and 26, according to Wm. Kohlmeyer, Purdue University poultry specialist and sec'y of the State Poultry Ass'n. The tour will start in the vicinity of Muncie and will go as far north as Noble County.

The detailed itinerary of the trip will call for visits to be made to many practical poultry plants and a stop at one of the state game preserves. The tour will include places of interest to turkey growers, hatchery operators, and farm poultry producers. In announcing the dates Kohlmeyer said, "This tour will be one of the most interesting and profitable ever held in the state. The counties to be visited have been among the leaders in poultry production and marketing. Every stop in the tour will be most worthwhile."

The trip will be made in private automobiles, and an effort will be made to arrange for those who do not care to drive their own cars to ride with others. The entire group will be kept together for meals and suitable arrangements will be made for overnight accommodations.

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OIL-ELECTRIC GRAIN DRIER
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Electricity in the Elevator

[Concluded from page 120]

the dust is so thick, and, most important of all, keep them clean at all times.

Only tell these experiences on myself in the hopes that they will serve as a warning to some other fellow operator. Wise are they who can profit from the experience of others. Of course, they say advice is what an old man gives a young man when he is too old to set him a bad example. So, please accept in the spirit given.

Experience also proves that lamps will give longer life when vibration is at a minimum and explains why some times you notice a knot tied in the cord if not to shorten it for convenience, but a light spring in bad places is preferable.

Life would be a poor existence if it were not for the faculty of being able to chuckle over some of the experiences, which at the time might have seemed serious, but recall a funny one of not so many years standing, when on a Monday morning after the power company had been doing some repairs on the Sunday previous, it was found the machinery was all running backwards. This sure was a conundrum at first—each operator thought someone was playing a practical joke—but to one electrician starting the passenger elevator and having parts of the automatic overrun throw-out come tumbling down from above, it was no joke. The human element is not infallible, and serious might have been the result from changing the phasing had a leg with new type backstop been started.

Though we may be blessed with the most complete and perfect electrical apparatus, the best engineers on the North American continent can devise and manufacture, yet its satisfactory operation cannot be assured unless the human factor operating same is eternally vigilant in its duties. In view of the far-reaching effects and the entire dependence placed on an ample uninterrupted source of electricity, it behooves everyone from generating station operator to the assistant electrician who only air cleans and oils the motors, to do their utmost to recognize the importance of their duties and make electricity in the elevators its own best sales agent at all prospective plants.

Kansas Professors Expect Higher Wheat Prices

The Kansas State College of Agriculture in its Aug. 2 forecast says:

"Recovery from the late July declines in wheat prices with late August prices near the best July levels, seems probable. Declines such as occurred in late July probably will be of short duration, since the wheat supply situation indicates a higher trend of prices during the next few months.

"With the fifth consecutive small crop in prospect in Canada, and with the probability that the United States spring wheat crop may be smaller than the July estimates, it is not expected that August prices will decline below late July levels. In the last four years, which were all years of small crops in Canada, cash prices at Kansas City were higher in early September than in early August once, were the same twice, and lower once.

"In four years of severe rust damage, wheat prices at Kansas City in early September were higher than in early August three times and lower once. In three of these four years, the peak of advance which started in early July was in September, and once it was in early August. In two of these years, the advances were about 35 cents, and in the other two the advances were nearly 50 cents."

Economy in Terminal Elevator Operation

By P. C. POULTON, Supt., N. M. Paterson & Co., Ltd., Ft. William, Ont., before Society of Grain Elevator Superintendents

In recent years the tendency of new elevator construction has been towards the installation of shipping facilities, conveyor belts and shipping legs, of large capacity, 25,000 bushels per hour and upwards.

Do grain elevators require to have shipping units of such large capacities? From the standpoint of economy of power, the contention is, No! for reasons this paper will endeavor to show.

Shipping legs of 25,000 bushels per hour require 175 horse power to drive them.

Using a two-leg house as our basis for argument, it is seen that 350 horse-power is required to drive two such legs; against the power rating of 200 horse power required for two legs of 15,000 bushels per hour capacity, meaning a saving of 150 horse power or $150 per month, or $1,800 per year (using local power rates in making this comparison).

It follows as a natural corollary that each and every conveyor belt feeding such high capacity legs must be capable of supplying the leg lifting capacity; therefore, increased power is required, from bin bottom to shipping garner.

So little labor is expended in connection with the work of shipping grain, it is difficult to see where the capital costs of first installation of such equipment, plus the additional power costs, is warranted by any corresponding saving of labor to offset those charges.

With high rates of shipping capacity in an elevator's facilities, more than 60% of its peak demand is given over to that end of its operation, which work is not by any means continuous.

If we must have fast legs and fast belts, let us have them where the higher costs of installation and operation can be offset by a corresponding economy of labor costs at the receiving end.

Transformers, even when located in the cleanest of places, will absorb sludge and gather moisture in their insulating oils. Sludge and moisture, when present in a transformer's oil, form a very dangerous combination, one, very detrimental to the proper functioning of the oil, and should certainly be removed, once yearly.

I wonder if any of us give enough thought to our transformers and realize their importance and how disastrous it would be to our plants, if we should lose them when we are real busy.

Therefore, for the sake of peace of mind, and absolute economy, all oils in transformers should be put thru a filtration process once yearly.

Filtration of oils in use in transformers is to be preferred to a supply of new oil, because, apart from the absolute economy of filtration, there can be no positive assurance that new transformer oil would be entirely free of moisture, due to its possible entrance, from condensation into the oil, between the time it was placed in metal containers at the refinery and the time it was delivered for use.

Therefore, if you would avoid motor failures, clean them thoroly once yearly, and check for bearing wear often.

At the time of dismantling, all old oils should be drained and all sludge and foreign matter very thoroly removed from bearing wells before replenishing with clean oil. The oil taken from bearings can be saved, to be later filtered and made fit for further use.

Rags should always be used in cleaning motor bearings, or any other type of bearing, never cotton waste.

Before a motor is re-assembled, its coils should be thoroughly cleaned and a protective coating of some recommended product for that job should be applied to the coil windings, to protect them from atmospheric and dust deteriorations.

Starters—It is also a good practice thoroly to clean out the oil wells of starters, once yearly at least, to make them free of sludge and moisture.

Separators—Everyone has had experience with Monitor Separators and the parts of that machine which are prone to wear, the brush carrier shafts and the brush carrier hubs.

The wearing of the brush carrier hub is really the crux of all brush carrier trouble. It becomes worn and throws the yokes out of correct alignment, thereby causing them to cut the points of the groovings of the expensive shaft of this equipment. It is a good practice, if you would economize on this machine, to examine the brush carrier parts before and after continuous heavy service.

The old installation of the brush carrier parts previously came in one complete, indivisible part, and when the hub showed wear, it could either be built up by welding and machining to shaft size, or a complete replacement of the part could be made.

Today it is possible to buy at attractive prices, brush carrier arms for the Monitor Separator, which comes in knock-down form; hence, when the brush carrier hub shows wear and the yokes begin to cut the shaft groovings, the hub only can be replaced, and at only minor cost, insuring first-class brush carrier performance.

The Elevator stores: Items, such as ropes, cables, paints, window lights, electric lamps, brooms, oils, greases, and those tools which are only seldom used, etc., require constant and careful supervision, if you would avoid losses and be able to find, at once, everything an elevator owns, when needed.

There is only one way to accomplish this, and that is by organizing a store-room, in charge of one man, who is to be held strictly responsible for everything in his care. In other words, one man in the plant, whose job it is to safeguard those things which are purchased for plant maintenance.

A properly constructed store-room should be provided with a split door, over which articles of stores can be handed out, and no one should be allowed to enter the store-room excepting the man placed in charge of it.

The store-keeper can keep an up-to-date inventory of all elevator stores, keep a thoro check on all tools, and be made absolutely responsible for the safe return of all returnable articles which are issued out of stores for use in the plant.

An old sailor makes an ideal store-keeper. His experience has taught him the proper care of tools. He is able to splice both manila and wire ropes, repair car shovels, and do numerous other odd jobs.

In addition to the above work, he can be made into a day-watchman, requiring him to make daily visits to all parts of the building, which in quiet times might not otherwise be visited.

Federal tax collection on grain futures transactions was $453,689.75 in June, against $185,413.35 in June, 1936. It cost the grain grower more than the tax collected, because the tax drove many buyers out of the farmers' market.

Supply Trade

Chicago, Ill.—Link-Belt Co. has ready for distribution its list price book No. 1622 covering cast iron pulleys for power transmission.

Tiffin, O.—The executive offices of the Webster Mfg. Co. have been moved to this city. A sales office will be maintained in the Fisher Bldg., Chicago.

Lockport, N. Y.—James Richmond, president of the Richmond Mfg. Co., died recently. Mr. Richmond was one of the pioneers in the manufacture of grain cleaners and other grain elevator machinery.

Minneapolis, Minn.—The current number of the Strottco Bulletin, published monthly by the Strong-Scott Mfg. Co., shows illustrations and gives information on many of this company's products for grain elevators and feed mills. Readers of the Journals desiring to receive this informative bulletin regularly should write the company direct.

East Pittsburgh, Pa.—S. D. Mahan has been appointed general advertising manager of the Westinghouse Electric & Mfg. Co. Mr. Mahan was formerly manager of merchandising advertising. In his new work he will have general supervision over all advertising and sales promotion work. His headquarters will be in Mansfield, O., where the merchandising division of the company is located.

Minneapolis, Minn. — Howell Sectional Steel Grates have recently been installed by the following: Farmers & Merchants Elevator Co., Belgrade, Minn.; Farmers Elevator Co., Sheldon, N. D.; J. A. Carroll, Glenburn, N. D.; Osborne-McMillan Co., Grano and Wimbledon, N. D.; Farmers Elevator Co., Waseca, Minn.; Farmers Exchange, Litchfield, Minn.; National-Atlas Elevator Co., Danvers, Minn.

The appeal by the Kansas City Board of Trade from the Circuit Court decision upholding the Commodity Exchange Act is now in the Supreme Court.

A. E. Staley Mfg. Co. net income for the 12 months ending June 30 was reported at $1,207,532, an increase of $149,670 over the net for the preceding fiscal year.

The Millers National Ins. Co. reports an increase of 25 per cent in premiums written during the first half of 1937, compared with like period of 1936.

Germany, on Aug. 5, ordered a tax of $30,100,000 on brewers, grain dealers and the sugar industry to finance an increase in the price paid farmers for rye.

Recipe for Rat Poison

John Lehmann, pres. of the Pacific Northwest Feed Ass'n, has given Floyd Oles, manager, of the Ass'n, the formula for a rodent exterminator, that Mr. Oles passes on.

Mr. Lehmann says the results have been absolutely one hundred per cent, and that he has not seen a single dead rat in the place, since they appear to have taken the poison and disappeared with it, and there has been no trace of a rat or mouse since the place was baited.

Following are the instructions in John Lehmann's own words:

"Mix equal parts of ground peanuts, table corn meal, quick cooking table oats and ground sweet chocolate. Add 1 part of No. 1 red squill to 10 parts of bait. Place teaspoonful of bait on a double sheet of toilet tissue. Twist the ends of the tissue together and seal ends by dipping in hot paraffine. Scent with oil of anise.

"Place these baits a foot or two apart close to the wall on all floors. Leave them there. They will be just as effective a year hence as they are the day they are put out. Sacks are cut by rats looking for nesting material. They will use tissue paper in preference to burlap if tissue paper is available. Put out plenty of baits. In our place over 3,000 baits were used."

Getting Full Capacity from Cleaner

To take full advantage of the capacity built into the Eureka separator and grain cleaner in the elevator of the Gibsonburg (Ohio) Elevator Co., Manager Ed Tille increased the outlet from the fans to 24 inches and replaced direct use of the dust house, with a large cyclone dust collector.

"Use of the 24-inch pipe," he says, "enables us to take full advantage of the cleaner's 1200 bus. per hour capacity, and the increased outlet for the air pressure enables us to control the carryover and do a better job of cleaning.

"Now we remove all of the cheat, about three-fourths of the cockle, and much of the light berries of wheat with once over the cleaner."

A 12-inch pipe is led into the main pipe from the corn cleaner to handle the dust, silks, and shucks from the Sidney combined corn sheller and cleaner. So the dust collector serves two machines. The two machines are located side by side on the workfloor of the elevator. The pipes lead under the roof of the driveway to the dust collector located just outside the driveway as is clearly shown in the illustration herewith.

"It is the increased air outlet that improves the cleaning capacity and quality," explains Manager Tille. "But if the pipes were led into the dust house only we would be having dust all over everything. The collector controls this dust so that we can readily sack it."

AAA Reports Conservation Payments

Payments to farmers in all parts of the country under the 1936 agricultural conservation program and county, State, and national administrative costs prior to July 1, 1937, totaled about 400 million dollars, the Agricultural Adjustment Administration announced recently.

Out of $399,721,104.94 of expenditures under the 1936 program, payments to farmers including county expenses amount to $379,814,149.55 or about 95 per cent of the total. As of June 30, 1937, there were only $14,587,802.09 of unpaid applications under the program, and $365,226,347.46 had been actually paid to farmers.

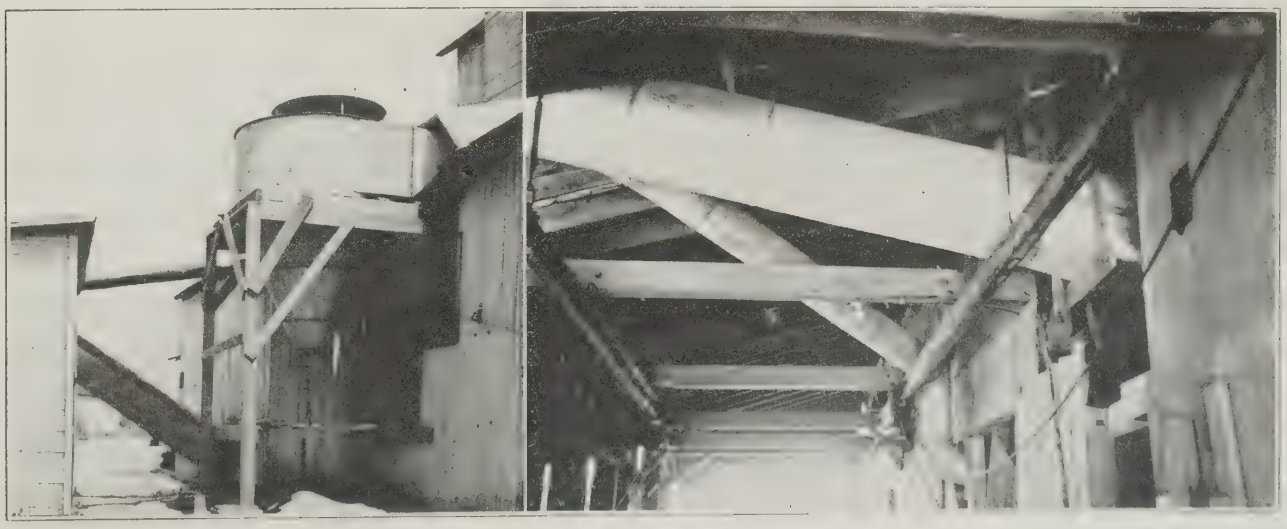
Payments were made to farmers for carrying out soil building practices on approximately 53 million acres of land, and for diverting about 31 million acres from soil depleting to soil conserving and erosion preventing crops. Of this diversion, it is estimated that 20,367,150 acres were diverted from the general soil-depleting base of cooperating farmers, 9,997,300 acres were diverted from the special cotton base, 383,640 acres were diverted from the special tobacco bases, and 162,900 acres were diverted from the special peanut base. Rates of practice payments were based on costs of practices and materials, and rates of diversion payments varied according to productivity of farm land.

The total payments made and to be made in the North Central Region during the fiscal year July 1, 1936, to June 30, 1937, aggregated $147,120,137.41, while the payments and administrative expenses for the year were apportioned among the states of the region as follows:

Ohio, $10,355,978.82; Indiana, $11,096,417.12; Illinois, $17,397,012.17; Michigan, $7,589,229.17; Wisconsin, $12,351,596.00; Minnesota, $18,858,678.35; Iowa, $28,876,353.58; Missouri, $13,684,111.29; South Dakota, $16,348,525.36; Nebraska, $16,053,701.35; Regional Total, $152,611,603.21.

Corn imports into the United States during the week ending July 31 established an all-times record, being in excess of 5,000,000 bus., as reported by the Buro of Agricultural Economics.

"If it can not be stopped in any other way, Congress should enact a law imposing very severe penalties upon any government official who undertakes to influence either crop production or crop prices. The business of the government employe should be administrative. Farmers have been the victims of government exploitation," said Henry A. Wallace, Nov. 5, 1920, in his farm paper. Now employed by the government as sec'y of agriculture, he is working to control production and prices by his "ever-normal" granary, and benefit payments for not producing.



How a Gibson, O., Elevator Improved Its Cleaning Results

Field Seeds

Lowell, Ariz.—James Brophy, Jr., has engaged in the seed and feed business.

Pella, Ia.—The Sioux City Seed Co. has 200 men and boys employed here detasseling corn.

Bismarck, N. D.—E. B. Kenefick, formerly of Pierre, is now manager of the Dacotah Seed Co.

Grinnell, Ia.—Seed cleaning equipment is being installed in the new plant of Sumner Bros. Seed Co.

Lynnville, Ia.—Arie Terpstra has sailed for Europe to sell 250,000 pounds of bluegrass seed in Holland, France and Germany.

Birmingham, Ala.—The G. A. Hastings Seed Co. of Atlanta, Ga., has taken a long-term lease on a building here which is being remodeled into a modern wholesale and retail seed store.

Madison, Wis.—Hybrid seed corn was the main topic at the summer meeting of the Wisconsin Seedsmen's Ass'n, held here Aug. 7 in the agronomy building of the university. Demonstrations were viewed at the University Farm.

Durant, Ia.—Students from several colleges employed to detassel corn for the Pioneer Hi-Bred Corn Co. went on strike recently for an increase of 10 cents an hour, over the rate of 30 cents an hour plus room and board. Twenty returned home and the remainder of the 85 strikers went back to work.

The first answer to smutty wheat is proper treatment of the wheat seed with copper carbonate, copper sulphate, or other compounds that adequately arrest the development of smut spores on the growing plant. To the terminal elevator and the miller, the first best answer is purchase of clean grain; the second is to install a wheat-washing machine or two, to clean smutty grain after it has been run thru a cleaner and the smut balls removed.

Lafayette, Ind.—During the year ending June 30, 1936, the state seed inspection collected and tested 1,610 samples of seed, besides 3,069 free samples. In the 234 cases of misbranding the claimed 99.50 per cent purity was found to be 94.32; the inert matter claimed 0.30, found 4.29; weed seeds admitted 0.10, found 1.26; and germination claimed 92 per cent, found 64 per cent, according to H. R. Kraybill, state seed commissioner.

Hampton, Ia.—Farmers Hybrid Seed Co. is the name of a new company headed by G. E. VanWert, with whom is associated Louis Schallon, of Ackley, Floyd Methfessel, of Clarksville, and J. S. Van Wert, of Allison. Work is about to start on a new seed plant for this company, which will be served by a railroad spur, and will be equipped with modern drying, sorting, treating and cleaning machinery for handling a full line of field seeds as well as the company's specialty, hybrid seed corn.

Kalispell, Mont.—Yogo, a new variety of hard, red winter wheat introduced by the extension service in the Flathead two years ago, is more than living up to expectations. According to County Agent S. N. Halverson, he recommends Yogo for this section above any other hard, red winter wheat. It yields heavily, is hardy and smut-resistant. In addition, actual tests show high milling quality. Tests have shown protein content of as much as 14.75 per cent. It is registered by the Seed Growers' Ass'n.—F. K. H.

Directory
Grass and Field Seed Dealers

CRAWFORDSVILLE, IND.
Crabbs, Reynolds, Taylor Co., clover, timothy.

GREEN SPRINGS, OHIO
The O & M Seed Co., seed merchants.

PAULDING, O.
Stoller's Seed House, wholesale field seeds.

ST. LOUIS, MO.
Mangelsdorf & Bro., Ed. F., wholesale field seeds.
Scott, T. Maurice, field seeds, carlot originator.

SAULT STE. MARIE, MICH.
Soo Terminal Co., grass, flax, peas.

Proposed Tagging of Alfalfa and Red Clover of Verified Origin

The Seed Verification Service of the U. S. Dept. of Agriculture, conforming to the opinion of seedsmen at the meeting June 14 at Cleveland, Ohio, has drawn up standards of germination and purity for alfalfa and red clover seed and has submitted them to dealer members of the service for consideration, with the following suggestions for tagging:

All alfalfa seed sold to retailers of seed or to farmers or other consumers shall bear an analysis tag stating lot number, germination test, purity and noxious-weed-seed content in compliance with the standard requirements for alfalfa seed and (a) if the seed is equal to or better than the standard of quality as shown on the analysis tag, it shall bear also a tag verified-origin seed certificate or (b) if below the standard of quality, it shall not bear a tag verified-origin seed certificate but the correct origin as verified in an official inspection certificate shall be stated on the analysis tag along with the other information required.

All red clover seed offered for sale, sold or shipped as verified-origin red clover seed to farmers or other consumers or to retailers of seed shall be of a quality equal to or better than the standard established for red clover seed and shall bear a tag verified-origin seed certificate and an analysis tag indicating the lot number and the factors of quality to comply with the standard.

Seed Movement in July

Receipts and shipments of seeds at the various markets during July, compared with July, 1936, in bushels, except where otherwise indicated, were:

	Receipts		Shipments	
	1937	1936	1937	1936
FLAXSEED				
Chicago	19,000	.....	.....	.....
Duluth	22,607	131,475	17,724	350,978
Ft. William	78,805	77,549	82,579	44,462
Minneapolis	83,020	169,700	48,460	100,020
Superior	3,325	76,945	27,124	277,892
KAFIR AND MILO				
Hutchinson	2,800	23,800	.....	.....
Kansas City	46,200	116,200	22,800	88,800
St. Joseph	1,500	.....	.....	.....
Wichita	.....	7,800	.....	5,200
CANE SEED				
Ft. Worth	.....	2,200	.....	.....
Kansas City	.....	2,800	600	9,000
SORGHUMS				
Ft. Worth	189,000	119,000	85,400	182,000
CLOVER				
Chicago, lbs.	.....	17,000	.....	.....
Milwaukee, lbs.	46,120	37,100	.....	.....
TIMOTHY				
Chicago, lbs.	.....	430,000	94,000	398,000
Milwaukee, lbs.	.....	349,250	.....	30,400
SOYBEANS				
Chicago	357,000	522,000	113,000	517,000
Indianapolis	1,400	7,000	.....	15,000
Peoria	2,800	18,200	.....	.....
Toledo	39,200	.....	.....	.....

Seed Treatments for Smut in Wheat, Oats and Barley

By P. C. MANGELSDORF, agronomist Texas Agricultural Exp. Sta.

The planting season for fall-sown wheat, oats, and barley is at hand. All these small grains are subject to smuts that cause loss if not prevented by seed treatments which experiments have shown to be effective. Wheat, oats, and barley are each affected by two smuts, "covered" and "loose," but each type of smut of each grain differs from the others and requires for most part different treatments.

The Stinking Smut of Wheat, also known as bunt or covered smut is characterized by balls of smut that replace the grains but as the outer glumes or chaff are not affected, it is difficult to distinguish normal from diseased heads of wheat in the field. The spore masses when crushed give off a disagreeable fishy odor and in the threshing process the healthy grains are often covered with the black ill-smelling powder from the diseased heads and are unfit for flour until put through a special scouring process. Smutty wheat is subject to a discount on the market averaging some 10c per bushel. The losses due to stinking smut are (1) lowered yield of sound grains, (2) loss from dust explosions in the threshing process due to the oily nature of the smut spores, and (3) the loss due to penalties for lower market grade.

Stinking smut is controlled by destroying the spores before the seed is planted. An old method was to dip the seed in a bluestone solution and a later method uses a formaldehyde solution, one pint commercial formaldehyde to 40 gallons of water in which to soak the grain. Both these methods are effective but they are laborious to use and germination will be injured unless the grain is planted promptly.

A new method consists in coating the grains with copper carbonate dust. For small amounts of seed a small rotary churn is satisfactory as a mixer. For larger amounts a barrel mounted to revolve on an axis is used. The grain may be mixed with the chemical in a concrete mixer or by shoveling on the floor or in any way to insure a complete coating of every grain with the chemical. Copper carbonate is a poison and when inhaled causes irritation and nausea. The operators should therefore be protected by respirators or moist cloth tied over the mouth and nose.

Copper carbonate is used at the rate of two ounces (two heaping tablespoons) per bushel if applied in a closed mixer but if applied loose, more dust will be required. Copper carbonate that will pass through a 200 mesh screen and contains 52 per cent copper is generally recommended. Seed can be treated any time before planting and can be stored indefinitely without injury to germination. There is evidence that copper treatment improves germination and prevents to some extent damage from insects and rats. The hot water treatment for loose smut is also effective for stinking smut.

Loose smut of wheat is marked by spore masses easily detected in the field. It destroys the beards and chaff as well as the kernels which are replaced by black spore masses which are usually blown away by harvest time. The damage from loose smut of wheat is confined to the reduction in yield due to destroyed grains. The disease is spread by microscopic threads of fungus within the seed itself and disinfecting the seed coat has no effect on the disease. Therefore the "hot water" treatment is used to kill the fungus but of course the water is not to be heated so much as to kill the germinating power of the seed. One method is to soak the seed in unheated water for 4 to 6 hours and dip into hot water at 120 degrees for a few minutes and then immerse in

water at 129 degrees F. for 10 minutes. After removing from the hot water it is again dipped in cool water or quickly spread into a thin layer to dry. Another method is to soak the seed 3 hours in water at 110 degrees to 115 degrees F. In either method the grain is immersed in bags half filled and suspended by ropes and kept constantly agitated. Burlap bags are better as they are penetrated by hot water four times as rapidly as cotton bags. Care must be used to maintain the water temperature required.

The laborious hot water treatment is to some extent injurious to germination and some growers treat only a small amount of seed for a seed plot which is grown on an isolated area to produce clean seed that will not require treatment for the following season. Such seed plots are observed closely and smut heads appearing are carefully removed. Both skill and extreme care are necessary to success with this method.

The hot water treatment also destroys the spores of stinking smut and when both smuts are present only one treatment is necessary. When the hot water treatment has been used the germination percentage should be determined and increased seed allowed, since the somewhat lowered germination due to seed injury in the treatments may cause more loss in yield than would the smut.

The "Covered" and "Loose" Smuts of Oats are caused by different organisms from those causing the smuts of wheat. Oats are treated with formaldehyde for both smuts. In one method, the seed is sprinkled with a solution of one pint formaldehyde (40 per cent solution) to 10 gallons of water. The seed is shoveled over repeatedly as it is sprinkled until the pile is thoroly moist after which it is covered with sacks or blankets for a few hours or overnight, or it may be sacked up on clean bags and left overnight and sown next day. Ten gallons of solution will treat 40 bushels by this method which is called the wet method. In the other method known as the dry method, one pint of commercial formaldehyde is mixed with a pint of water in a hand sprayer and as the grain is shoveled from one pile to another each shovelful is sprayed by holding the sprayer close to the grain so each load is well covered with mist. This amount treats 50 bushels of grain. After treatment the seed is mixed once more and covered for five hours. The seed may be planted immediately or aired, dried and stored for later use. Treated seed may become reinfected from sacks that have held smutty grain or from a drill box where smutty grain has been used. Thus the sacks and drill box must be clean or disinfected by generous spraying with the formaldehyde at rate of 1 pint to 10 gallons of water.

Treatment for Covered Smut of Barley consists of soaking the seed two hours in a solution of one pint formaldehyde to 40 gallons of water. Uspulun, a commercial seed disinfectant has been effective in controlling this disease. The treatment of loose smut of barley is the same as for the loose smut of wheat except the water is kept at 126 degrees F. and the seed is immersed 13 minutes.

Southern Seedsmen's Ass'n Com'ites

The Southern Seedsmen's Ass'n, which is headed by W. P. Wood, Jr., Richmond, Va., pres.; Frank D. Keller, Shawnee, Okla., 1st vice-pres.; R. E. Lambert, Jr., Darlington, Ala., 2nd vice-pres.; Frank S. Love, Jacksonville, Fla., sec'y-treas., has appointed the following com'ites for the current 1937-38 year:

Executive: W. P. Wood, Jr., Richmond, Va.; A. J. Biggio, Dallas, Texas; E. D. Hicks, Jr., Nashville, Tenn.; W. P. Bunton, Louisville, Ky.; Lane Wilson, Shreveport, La.; L. Harry Mixson, Charleston, S. Car.

Membership: Stuart C. Simpson, chairman, Monticello, Fla,; Wm. K. Wiley, Asheville, N. Car.; Duncan Fort, Nashville, Tenn.; H. G. Washburn, Atlanta, Ga.; Emile Scheuermann, Mobile, Ala.; Wm. G. Scarlett, Jr., Baltimore, Md.

All-America Selections: W. Ray Hastings, chairman, Atlanta, Ga.; H. R. Bingham, Jacksonville, Fla.; Ben Isgrig, Little Rock, Ark.

Grievance: W. P. Bunton, chairman, Louisville, Ky.; R. B. Hardie, Dallas, Texas; E. D. Hicks, Jr., Nashville, Tenn.

Traffic: F. J. D. MacKay, chairman, Richmond, Va.; J. M. McDonald, Atlanta, Ga.; Lane Wilson, Shreveport, La.

Arbitration: Martin Yopp, chairman, Paducah, Ky.; A. J. Biggio, Dallas, Texas; Lane Wilson, Shreveport, La.

Tariff: Wm. G. Scarlett, Jr., chairman, Baltimore, Md.; Gordon F. Wood, Richmond, Va.; R. E. L. Snelson, Savannah, Ga.

Publicity: R. B. Buchanan, chairman, Memphis, Tenn.; A. A. Hazen, Gainesville, Fla.; Charles D. Ross, Louisville, Ky.; E. E. Parker, Atlanta, Ga.

Price Differentials and Robinson-Patman Act: Lane Wilson, chairman, Shreveport, La.; Frank H. Dodge, Louisville, Ky.; Frank Faust, Atlanta, Ga.

Resolutions: H. G. Hastings, chairman, Atlanta, Ga.; L. Harry Mixson, Charleston, S. Car.; A. Reid Venable, Richmond, Va.

State Seedsmen's Associations and Seed Councils: Frank D. Keller, chairman, Shawnee, Okla.; Stuart C. Simpson, Monticello, Fla.; Emile Scheuermann, Mobile, Ala.

Illinois Grain Corporation total assets are $498,168.54, of which $460,224 consists of stock in the Farmers National Grain Corporation. Included in the liabilities are $458,129.09 owed to the Farm Credit Administration.

Farmers are gradually assuming the responsibility for controlling soil erosion and for conserving their natural soil and water resources in areas where demonstrations on private lands have been conducted by the Soil Conservation Service, according to H. H. Bennett, Chief of the Service, who has announced that active field operations of the bureau were concluded in 10 areas the past year and would cease in approximately 75 more areas by July 1, 1937.—*Good News.*

Popcorn Improvement

Breeding work with popcorn has been relatively limited, but it has produced some promising results. Mass selection, based on actual popping tests or on a rough comparison of the amount of soft white starch in kernels (the more starch, the less popping expansion) is useful in bringing about a gradual improvement in popping expansion.

The improvement in a six-year experiment conducted by the U. S. Dept. of Agriculture in cooperation with the Kansas station was about 36 per cent, and the improved strain has been distributed as Supergold. Hybridization of inbred lines has been carried on by several stations.

At the Minnesota station, 250 lines of a selection of Jap Hulless were developed by inbreeding, then culled to 7 lines by selection, and all possible crosses were made among the 7 lines. One cross was selected as superior; the hybrid, named Minhybrid 250, has had a 16 per cent higher yield and a 29 per cent higher popping expansion than the Jap Hulless used for comparison. A continuation of this project with new inbred lines is now in progress in Minnesota.

At the Iowa station, a promising threeway hybrid is now under test, and a group of inbreds is in the developmental stage. In a cooperative project between the Department and the Kansas station 81 hybrids have been produced recently, of which about ¼ show some improvement in popping expansion, and almost 90 per cent show a marked improvement in yield. The Michigan station is now carrying on an interesting experiment in producing synthetic varieties by combining a fairly large number of inbred lines.

Injury caused by diseases and insects is a distinct drawback in commercial popcorn. In the case of some diseases, selection for commercial characteristics tends also to bring about some selection for resistance. In the Southern states particularly, damage from the corn ear-worm and from storage insects is serious. The Texas station has a project under way in which an attempt is being made to introduce the insect resistance of their adapted field corn varieties into popcorn of good popping quality.—U. S. D. A.

Arkansas Seed Regulations

Following a public hearing on July 15 the Arkansas Plant Board, Little Rock, promulgated the following regulations.

Rule 67: Limitation on Amount of Noxious Weed Seed. To each bag or other container of alfalfa, lespedeza, clover, vetch, oats, wheat, barley, rye, sorghum, including sweet and grain sorghum, soy beans, and Sudan grass which is sold or offered for sale within the state for planting purposes, or which is transported into or within the state for planting purposes, there must be attached an analysis tag on which is correctly stated the name and number of the following noxious weed seed per ounce or per pound of pure seed, if any noxious weeds are present in the seed, and if none are present a statement to that effect: Dodder, buckhorn and other varieties of plantain, sorrels, docks, chess, cheat, red rice, wild onion or garlic, nut grass, corn cockle, and Johnson grass.

Shipment into or sale within the state, for planting purposes, of the above-named seed is prohibited, (1) If the seed contains dodder in excess of 1,000 dodder seeds per pound of pure seed, (2) if the seed contains Johnson grass in excess of five Johnson grass seeds per pound of pure seed, (3) if the seed contains wild garlic or wild onion bulblets, one or both in excess of five bulblets per pound of pure seed, (4) if the seed contains chess or cheat, one or both, in excess of 250 chess or cheat seeds per pound of pure seed.

Rule 68: Permit Tags Required on Certain Seeds Sold, or Transported Into or Within the State. Every bag or other container of alfalfa, lespedeza, cotton, clover, vetch, oats, wheat, barley, rye, sorghum, including sweet and grain sorghum, soy beans, and Sudan grass which is sold or offered for sale within the state for planting purposes, or which is transported into or within the state for planting purposes, must have attached thereto a permit tag issued by the Board, except that this rule shall not apply to seed sold in the immediate locality where grown.

ED. F. MANGELSDORF & BRO.
Buyers and sellers of
Sweet Clover, Alfalfa, Lespedeza, Clovers, Timothy, Grasses, Fodder, Seeds, Sudan Grass, Soy Beans, Cow Peas
St. Louis, Missouri

O & M
DEPENDABLE
FIELD CORN · SWEET CORN
SEED OATS · SEED BARLEY
GARDEN SEED · GRASS SEED
THE O & M SEED CO.
GROWERS GREEN SPRINGS, OHIO

CRABBS REYNOLDS TAYLOR CO.
CRAWFORDSVILLE, IND.
GRAIN
Clover and Timothy Seeds
Get in Touch With Us

Grain Carriers

Grain and grain products were loaded into 51,648 cars during the week ending July 24, against 54,999 cars loaded during the like week a year ago, as reported by the Ass'n of American Railroads.

Richmond, Va.—The Dixie-Portland Flour Mills Co. has filed complaint with the Interstate Commerce Commission against rates on grain and grain products in and out of Richmond, alleging discrimination in favor of Buffalo and milling centers along the Mississippi.

Seattle, Wash.—Hearings beginning Aug. 25 will be held in the New Washington hotel by the Interstate Commerce Commission on protests by the North Pacific Millers Ass'n and the grain growers against rates on wheat and flour to the Southeast.

Washington, D. C.—Representatives of 14 non-operating railroad unions and the carriers agreed here Aug. 4 on an increase for 800,000 men of 5 cents an hour, effective Aug. 1. The men had demanded an increase of 20 cents an hour.

Lincoln, Neb.—J. A. Little, rate expert of the Nebraska Railroad Commission, told Examiner Disque of the Interstate Commerce Commission at the hearing here that western Nebraska shipments are moving west to Denver and then east to Kansas City, instead of passing thru Omaha, on account of the lower rates to Kansas City.

Duluth, Minn.—The recent decision of the Interstate Commerce Commission in ordering the restoration of transit privileges on grain moving out of Duluth to consumer markets was very gratifying to the local grain trade. It revives hopes for re-opening domestic and possibly export business that was shut out because of restrictions against grain moved out of this market. Under the Commission's order, the railroads are permitted to file new tariffs immediately and the rates and transit privileges will become effective 15 days from the date of filing, about Sept. 1 and limit the stop-over privileges to a period expiring Dec. 1, 1938.—F.G.C.

Ottawa, Ont.—The Dominion Railroad Commission has been holding hearings on the proposal of the railroad companies to charge demurrage on grain cars.

Carrier is not liable for damage to shipment from unexpected and unprecedented flood amounting to Act of God where no negligence of carrier contributed to the damage.—Whittier Mills Co. v. Southern Ry. Co., Court of Appeals of Georgia, 190 S. E. 433.

The Laurinburg Milling Co., Laurinburg, N. C., has been fined $2,000 for failure to surrender S/O Bs/L before delivery of freight, and receiving unlawful extension of credit from the Laurinburg & Southern Railroad Co., which also was fined $3,000 for granting these concessions and failure to collect demurrage.

Three Free Transit Stops Granted

The Interstate Commerce Commission on Aug. 2 reversed its previous rulings on proportional rates; granted a third free transit stop in the territories covered by the investigation; authorized transit at Kansas City and other proportional rate markets on Pacific northwest wheat when destined to Minneapolis and Duluth or other points covered by thru rates, and gave Minneapolis a 4c reduction on southwestern wheat by permitting transit at Minneapolis on the basis of the 15c rate from Kansas City to Chicago plus an additional charge of 8c for the movement thru Minneapolis to Chicago.

Transit is granted at Kansas City on the Omaha-St. Louis proportional rate of 13 cents. Omaha is permitted transit on the Kansas City-Chicago rate of 15c, compared with a thru charge of 21c.

Omaha, Kansas City and other markets favorably affected by the ruling will urge the railroad companies to publish new transit rules as soon as possible. They will be effective 15 days after filing with the commission.

J. H. Wright, president of the Omaha Grain Exchange says: "The Omaha market is now placed back in the same position it held previous to July 1, 1935, and for which it has been contending ever since the original order was entered."

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"Cheap" River Transportation

Before the original bill that created the Inland Waterways Corp. to take over the War Department's barge line operations was pushed through Congress and became a law on June 7, 1924, the House com'ite on interstate and foreign commerce expressed its belief that a demonstration of the practicality of river transportation would light the way for investment of private capital in similar projects, and reduce many of the costs of transportation. Said the com'ite:

"The purpose of the pending bill is to reorganize the inland and coastwise water service and put it on a practical business basis. The government can and will within the next five years demonstrate not only the practicability of water transportation, but the great advantage and economy to shippers and the profitable results that will reward private capital invested in transportation facilities on our rivers.

"If the government, after making these rivers navigable, cannot profitably operate a transportation system on them, then it is hopeless to expect private capital to do so and Congress should no longer appropriate money from the public treasury for a useless purpose. Therefore, the com'ite was of the opinion that this bill should pass in order that this pioneering demonstration might be conducted by the Secretary of War until such time as its success or failure may be made apparent."

After 12 years the Inland Waterways Corp. is still in operation, tho it has failed to demonstrate in that period of "good times" and "bad times" an ability to show a satisfactory profit on investment sufficient to encourage the investment of private funds; and in several of the years the losses have been tremendous in spite of its freedom from the burden of building and maintaining a "road bed."

A ruling of the Interstate Commerce Commission led to a number of adjustments in the appraised value of equipment in 1935 and the revised statement of profit and loss summarizing 11 years of operation from the beginning of the Corporation, June 1, 1924, to the close of 1935, showed net profit of only $525,876.94. Operations to the close of 1936 brought the net profit to only $539,552.47, a ridiculous figure after 12 years of operation, considering the $12,000,000 in capital stock issued by the Corporation to the United States Treasury. An interest charge of only 3% on the public money that has been put in the Inland Waterways Corp., and its wholly owned subsidiary, the Warrior River Terminal Co., would show a tremendous actual loss.

The comptroller of the Corporation reported direct savings to the public on traffic handled by the Federal Barge Lines during 1936 at $2,050,800. The Corporation's report says this is the difference between charges paid on traffic routed via the Federal Barge Lines and what the charges would have been if the traffic had moved by rail. The figure is open to question. Presumably it is based on mileage only, giving no consideration to the thru and combination rates that apply via all-rail transportation, or to the local rail or truck rates that must apply to the movement of goods to or from the barge line terminals, and must necessarily be added to the barge line rate to complete the movement of merchandise.

A limited number of shippers unquestionably make good use of the barge lines at material savings in transportation costs. Unquestionably, too, these savings are made at the expense of the general taxpaying public, for operation of the barge line has been quite thoroly subsidized. Whether the benefits to a few at the expense of many is justified likely will remain one of those mysteries on which burocrats and taxpayers have directly opposite convictions.

Greasing Totally Enclosed Motors

Grease is the accepted lubricant for most industrial ballbearing motors of speeds up to 3600 r.p.m. (2000 r.p.m. in the larger sizes).

Altho grease is easier than oil to confine in a bearing housing, difficulty arises in measuring the amount of grease in the housing, since grease will not flow into overflow gauges or thru long outlet pipes except at pressure which would force it into the motor. If too much is used, trouble may be experienced either with the bearing because of excessive friction, or with the motor winding because of deposits of excess grease on the insulation.

All these difficulties are overcome in motors equipped with pressure-relief greasing system, comprising an inlet and an outlet for the grease. At the top of the cartridge cap containing the balls is a hydraulic-type pressure-gun fitting, the top of the fitting being ball-shaped, permitting the use of an ordinary pressure gun at a considerable angle from the vertical. Directly below at the bottom of the cap is the relief plug.

The procedure for the drive end of an enclosed motor is as follows:

Wipe clean the pressure-gun fitting and the region around the fitting and relief plug.

Remove the relief plug.

With a clean screwdriver or similar instrument free the relief hole of any hardened grease.

With the motor running, add grease with a hand-operated pressure gun until it is expelled thru the relief hole. This tends to purge the housing of used grease. A hand-operated pressure gun should be used in preference to an air- or pedal-operated gun because it will not feed grease to the housing faster than it can be used or faster than excess grease can pass thru the relief hole.

Allow the motor to run long enough after adding grease to permit the rotating parts to expel any excess grease. This is very important.

Replace the relief plug.

Never add grease with a pressure gun without first removing the relief plug. It should be kept out for several minutes after the addition of grease to permit the rotating parts of the bearing to expel any grease.

The procedure for the fan end of the enclosed motor is somewhat different. For most effective results the motor should be in operation.

At the fan end, the housing is provided with a vertical pipe, the outer end of which has a standard pressure-gun fitting, to permit the insertion of grease into the housing from outside the fan cover. On the horizontal center line of the motor, the housing is equipped with a removable pressure-relief or excess-grease pipe extending horizontally to the outside of the fan casing.

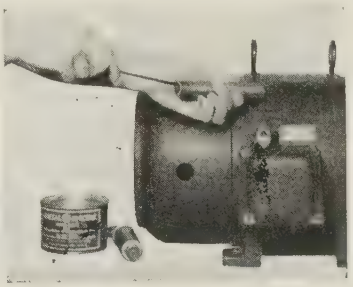
Remove the horizontal excess-grease pipe. Using a screwdriver, wire, or similar implement, clean out any old and hardened grease that is in the pipe.

Replace this pipe, and with a pressure gun add grease to the housing thru the vertical pipe.

One or more times during the greasing process, remove and inspect the horizontal pipe. When grease appears at the inner end of the pipe, no more should be added. The pipe should then be cleaned of grease and replaced.

If the instructions have been carefully followed, the excess-grease pipe will serve as a sump to allow for further displacement or expansion of the grease that is now in the housing.

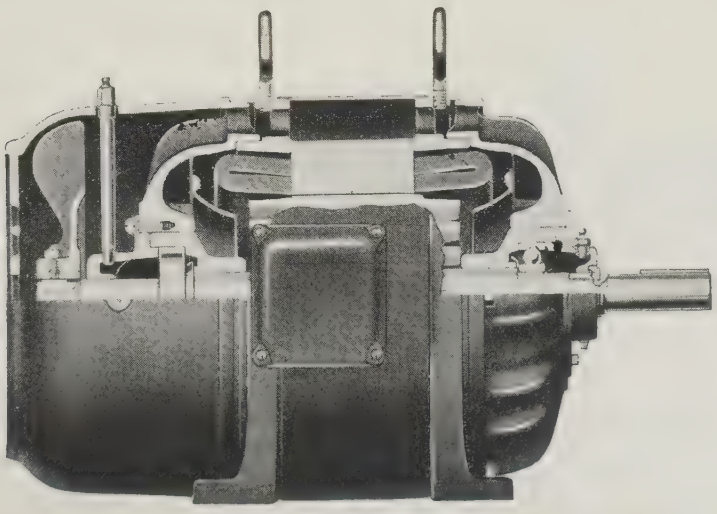
All electric motors are not equipped with this efficient greasing system, but it is found in all standard lines of General Electric industrial-type ball-bearing motors.



Cleaning Horizontal Grease Pipe.

Grease Pipe Ready for Final Replacement.

Gun Forcing Grease into Vertical Pipe.



Sectional View of Totally Enclosed, Fan-Cooled Induction Motor.

Trading in linseed oil for future delivery will be begun Sept. 1 on the New York Produce Exchange, President John McD. Murray announced Aug. 2. The unit of trading will be 60,000 pounds of bulk oil conforming to specifications of the American Society for Testing Materials.

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Feeds & Feeding

by

F. B. Morrison

This edition has been entirely rewritten and revised to contain the latest information on live stock feeding and nutrition. Entirely new compilations of recent analyses of American feeds are presented in the Appendix Tables. Extensive data are presented concerning the mineral and vitamin content of important feeds.

The only authoritative book on the subject of animal feeds and feeding. The result of over 38 years of exhaustive work in experimentation.

Its three parts, each divided into numerous chapters, cover "Fundamentals of American Nutrition," "Feeding Stuffs," "Feeding Farm Animals." This new edition contains approximately 40% more material than the 19th edition, and contains 1,156 pages, including 95 informative illustrations. This book will enable any grinder and mixer of feeds more intelligently to suggest and compound worth while rations. Beautifully bound in black keretol, durable covers; weight 5 pounds, price $5.00 plus postage. Send for your copy now.

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332 S. La Salle St. Chicago, Ill.

Feedstuffs

Commercial feeds in 10-lb. packages, packed in 50 or 100-lb. containers, bearing an analysis tag and feed inspection stamp, may be sold in Alabama when the 10-lb. packages are properly labeled.

The value of oilseed cakes and meal to the livestock feeder lies largely in their protein content, but these products also contribute a quota of oil, carbohydrates, and mineral salts, particularly phosphates.

Salem, Ore.—Feed dealers met here recently at the Argo Hotel to discuss price control and charges for grain cleaning and storage. Dan Hogan, treasurer of the Oregon Feed Dealers Ass'n, explained the work of the ass'n.

Wheat testing, 45 lbs. to the measured bushel, was found on analysis by the Indiana State Chemist to contain 11.3% moisture, 11.2% protein, 1.9% fat, 3.2% fiber, 1.9% ash, and 70.5% nitrogen-free extract, indicating that the light weight wheat of this crop has good feeding value.

In 1936, Elvehjem, Koehn and Oleson, reported the existence of a dietary essential distinct from vitamins B_1, B_2, B_4, B_6 and flavins. This factor was originally designated as the alcohol-ether precipitate factor, but now it is referred to as Factor W. The addition of a concentrate of Factor W to a diet otherwise complete in all dietary essentials caused a growth of 3.5 to 4.0 gms. per day, while animals without the factor gained less than 1 gm. per day over a six-week period. Potent concentrates of Factor W have been prepared from liver extract and milk. Yeast and kidney are high in this factor, while wheat germ, rice bran, and cereal grains are of low potency.

Dry Skim Milk in Pig Feeding

W. L. Robison, in charge of swine investigations at the Ohio Agricultural Experiment Station, Wooster, O., recently presented the results of four feeding trials with pigs in dry lot. (Since the pigs were always under cover and received no sunlight it was necessary to provide a small amount of codliver oil in order to avoid rickets). The results show that the use of a comparatively small amount of dry skim milk—one per cent, total ration basis, or 5.6% in the protein supplement—produced pork for less money. It did this by definitely lowering the amount of total feed required to make a pound of pork. In other words it increased the feed efficiency. Note that these results are the average of four trials.

That is interesting to pig feeders. Somewhere in the neighborhood of one-third of the 40 to 45 million pigs marketed per year are fed without pasture. The small amount of dry skim milk used, 5% to 6% of the protein concentrate, can save quite a lot of money.

What is the value of dry skim milk when used in this way? In the feeding trials it was figured into the ration at $6 per 100 lbs. As much as $9 per 100 pounds could be paid for it and still break even. At present dry skim milk prices there is a saving of quite a substantial amount of money in pork production costs, approximately 50 cents per pig.

Note also that 13% of dry skim milk in the supplement, when used during the growing period only, also lowered the cost of the pork produced. The 5% to 6% level is evidently the lowest level at which an appreciable increase in feed efficiency is brought about. To produce pork at the lowest cost, when fed without forage, not less than this amount of dry skim milk should be used in the protein concentrate.

Merits of Yeast

H. A. Halvorson, chemist in charge of Minnesota's Division of Feed & Fertilizer Control, in his introduction to the 18th annual Feed Bulletin of the Minnesota Department of Agriculture, comments about yeast feeds as follows:

"During the past two years many letters of inquiry from purchasers of certain specialty feeds have been received, requesting information regarding their high cost as compared with other rations and mineral mixtures. These products differ in composition and are variously represented as: yeast, yeast cultures, mineralized yeast or feed mixtures with yeast, etc., and it is obvious that this higher price is due principally to the yeast present. So far as a search of present nutrition literature reveals, the following reasons are the only ones given for including yeast in an animal's diet: (1) its vitamin B or G complex content, (2) its protein, and (3) its ability to ferment sugars under favorable conditions.

"Since pure dried yeast contains in excess of 45 per cent protein, it is evident that yeast products testing only 10-12 per cent (corn meal and other ingredients may contain about an equal percentage) must be greatly inferior to the undiluted product in yeast proteins and vitamins. Recently, distributors of supplements made of yeast, grains, and other feedstuffs have avoided stressing the commonly-accepted virtues of dry yeast in favor of selling arguments based on claims that the growth or condition of poultry and other livestock are improved and that they derive benefit from eating rations fermented by yeast.

"Due to differences of opinion between manufacturers of yeast products and nutrition investigators regarding the merits of yeast and its economical use as a feed ingredient, consumers should carefully weigh advantages and disadvantages with price when contemplating purchase."

Feed Prices

The following table shows the closing bid price each week for October futures of standard bran and gray shorts, spot cottonseed meal, soybean oil meal, and No. 1 fine ground alfalfa meal, in dollars per ton, and No. 2 yellow corn and No. 2 yellow soybeans in cents per bushel:

	Minneapolis Spot		Kansas City	
	Bran	Midds.	Bran	Shorts
May 29.....	31.75	38.50	22.00	27.50
June 12.....	26.50	33.50	18.90	22.50
June 26.....	20.50	28.50	19.40	23.50
July 10.....	27.00	32.00	21.26	25.50
July 24.....	26.00	33.50	18.50	22.50
July 31.....	21.50	27.50	17.35	20.25
Aug. 7.....	21.00	23.00	17.55	20.30

	St. Louis		Chicago	
	Bran	Shorts	Soybeans	Meal
May 29.....	24.10	29.00	162½	47.20
June 12.....	20.80	24.25	142½	43.20
June 26.....	21.35	24.75	131½	34.00
July 10.....	23.25	27.85	145¾	35.00
July 24.....	20.65	24.00	1.25	37.00
July 31.....	19.45	22.00	no sales	36.00
Aug. 7.....	20.00	22.50	no sales	33.00

	Cottonseed Meal		Kansas City	
	Ft. Worth	Memphis	Alfalfa	Chicago Corn
May 29.....	45.00	39.50	25.00	131
June 12.....	45.00	34.50	23.50	118
June 26.....	42.00	32.25	23.00	125
July 10.....	41.00	32.00	20.00	131
July 24.....	38.00	31.50	22.00	109
July 31.....	38.00	31.50	22.50	112
Aug. 7.....	35.00	29.00	22.00	115

Feeds for Fattening Beef Calves

W. H. Black and E. A. Trowbridge in Technical Bulletin 564 of the U. S. Dept. of Agriculture report on concentrate rations for calves in an experiment conducted at Grain Valley, Mo.

In the creep-feeding experiments, which were carried on for 140 days, the calves fed shelled corn and cottonseed cake gained, on an average, 8 pounds more than those fed ground corn and cottonseed cake, 13 pounds more than those fed ground corn, cottonseed cake, and alfalfa-molasses mixture, and 22 pounds more than those fed shelled corn, cottonseed cake, and the alfalfa-molasses mixture.

As an average for the 2 years, the addition of the alfalfa-molasses supplement to a shelled-corn and cottonseed-cake ration and grinding the corn in that ration resulted in a mixture that required 25 per cent more feed than did the unground shelled corn-cottonseed cake ration for 100 pounds of gain.

The higher gain of the calves fed shelled corn and cottonseed cake and their more economical gains more than offset the slightly higher valuation of the calves getting shelled corn, cottonseed cake, and alfalfa-molasses supplement. Grinding the corn increased the cost of gains significantly but did not materially affect the average rate of gain nor values of the cattle.

In the two dry-lot fattening experiments of 196 days each immediately after weaning, there were no significant differences in total gains made by the four lots of calves fed the same type of ration as they had received previous to weaning. Calves fed shelled corn and cottonseed cake were the heaviest at the end of the experiment, but most of the difference was due to the greater gains made during the creep-feeding period. As was the case during the creep-feeding period, the palatability of the ration was improved during the dry-lot fattening period by grinding the corn or by adding alfalfa-molasses supplement to the ration. Less concentrates were consumed per head and per 100 pounds of gain by the calves fed corn and cottonseed cake than by the calves receiving the alfalfa-molasses feed in addition. The slightly higher valuation, per hundredweight, of the cattle fed ground corn and cottonseed cake, either with or without the alfalfa-molasses mixture over those fed the shelled corn and cottonseed cake was more than offset by the higher feed costs. The practice of grinding the corn, adding alfalfa-molasses mixture, or both, was not justified in these experiments.

There were no significant differences in average net returns per calf between those fed supplements for 140 days before weaning and those continued on those supplements for 196 days after weaning. Differences in market values were almost entirely responsible for differences in net returns.

Commercial Feed Sales in Indiana

The tonnage of feed sold in Indiana during 1936 was the highest ever recorded, and the estimated retail value was $25,574,639, against $13,088,287 in 1934, according to H. R. Kraybill, state chemist.

Sales of Commercial Feeding Stuffs in Indiana

Kind of Feed	Estimated Tons 1934	1936
Alfalfa meal and leaf meal	3,313	5,594
Animal by-products (tankage, meat scrap)	39,313	41,500
Brewers', distillers' and yeast dried grains	1,969	7,031
Condimental poultry and stock feeds*	688	1,031
Corn feed meal	1,250	1,125
Corn germ meal	813	406
Corn gluten meal and feed	2,594	2,625
Corn and oats chop and miscellaneous chops	4,406	4,531
Cottonseed meal	4,625	11,688
Hominy feed	42 250	58,844
Linseed oil meal	3,563	5,188
Milk by-products	4,531	7,750
Mill by-products	96,125	111,438
Mineral feed	3,063	4,844
Oat meal by-products	1,375	1,219
Poultry scratch feed	15,281	24,164
Poultry mash	91,938	186,281
Proprietary feeds—		
Cattle and dairy feeds	21,625	47,125
Hog and pig meals	6,875	44,250
Horse and mule feeds	1,750	2,938
Small animal and pet feeds	2,656	4,406
Calf meals	500	1,844
Sheep feeds	31	344
Soybean oil meal	1,031	14,656
Miscellaneous	3,000	2,781
Totals†	354,565	593,603

*Not all condimental feeds come under the law.

†Does not include feeds registered under annual registration fee.

Adulterations and Misbrandings

The Food and Drug Administration of the United States Department of Agriculture, gives notice of judgment under the Food and Drugs Act, concerning:

No. 26829. Misbranding of alfalfa meal. U. S. v. Tremaine Alfalfa Ranch & Milling Co., Inc., Mesa, Ariz., which was alleged to have shipped a quantity of misbranded alfalfa meal from Arizona into Texas about Sept. 24, 1934. The product was found to contain less than the 16% protein, less than the 40% nitrogen-free-extract, and more than the 25% crude fiber stated on the tags attached to the bags. On a plea of guilty a fine of $50 was imposed.

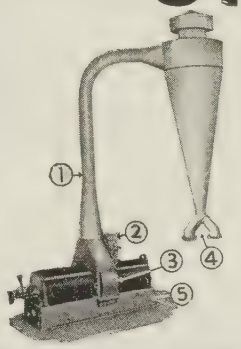
Feedstuffs Movement in July

Receipts and shipments of feedstuffs at the various markets during July, compared with July, 1936, in tons, were:

	Receipts 1937	1936	Shipments 1937	1936
*Baltimore	5,529	4,357	.....	.....
*†Boston	723	901	.....	.....
*Chicago	4,793	12,772	26,909	44,621
†Kansas City	5,075	7,850	27,306	19,800
Milwaukee	590	1,055	1,635	11,215
*Minneapolis	2,377	1,989	23,727	42,727
*Peoria	10,820	14,390	12,134	15,672
†San Francisco	.....	492	.....	.....

*Millfeed. †Bran and shorts.

Save with **STRONG-SCOTT** Equipment



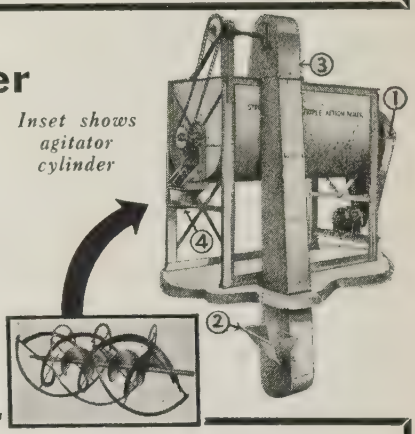
Pneumatic Attrition Mill

Eliminates Fire and Explosion Hazards. Feed is elevated through piping (1) by air and with no power required in addition to the grinding motors. Feeder (2) is non-choking and adjustable. Removable cover (3) gives easy access to grinding plates. Feed reaches sack or bin (4) thoroughly aerated and cool. Heavy base (5) and sturdy construction throughout, mean long life. Write for price.

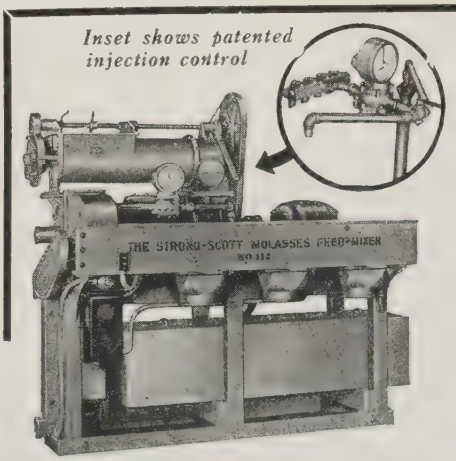
Triple Action Dry Feed Mixer

A complete unit operated by one man. Saves 25% to 50% in operating costs. 1—Combination V-Belt and Planetary gear drive cuts power costs. 2—Loading spout position optional. 3—Elevator leg—either side. 4—Handy sacking spout and gate.

Inset shows agitator cylinder



Inset shows patented injection control



Molasses Feed Mixer

Makes lumpless, golden brown molasses feed. A patented process of molasses injection under metered control, not to be found in other mixers, assures highest prices for feed mixed by the Strong-Scott Unit Molasses Feed Mixer.

Everything for Every Mill, Elevator and Feed Plant

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Write for Our New Feed Mill Equipment Booklet It Will Interest You

Poultry Feeds and Feeding

Turkey feed is the largest and most variable cost. Six lbs. of feed produce 1 lb. of turkey grown under confinement; 4½ lbs. of feed produce 1 lb. of turkey grown on range.

An abnormal thickening or swelling of the gizzard lining, distinct from crater lesion, has been found by the Wisconsin University to occur in young chicks fed a finely ground, gritless ration. The condition may be prevented by feeding grit or a coarsely ground ration. There is evidence that poor growth is associated with this abnormality, and hence that growth may be improved by supplying grit; but growth results may be complicated by the bad effect of grit on chicks having crater lesions.

The Washington State Tax Commission has promulgated the following ruling: "Sales of peat moss, straw or other litter, for use by poultrymen, are retail sales, notwithstanding the fact that such litter, after it has performed its service for the poultrymen, is sold or delivered to a person engaged in commercial production for use as a fertilizer. It is immaterial that such litter is purchased by a commercial gardener or farmer and delivered to poultrymen, first for use as litter and later used by the original purchaser as fertilizer. The primary use is controlling in determining the character of the sale."

Worthless Poultry Remedies

Recent prosecutions under the federal food and drugs act led to fines on three purveyors of poultry remedies.

Albert T. Peters and Paul S. Casey, trading as Vitamineral Products Co., Peoria, Ill., "Astringent Tablets," worthless tablets consisting of 89% table salt with a green dye, offered as an intestinal antiseptic for the treatment of coccidiosis, diarrhea, dysentery, fowl typhoid, fowl cholera and other intestinal diseases of poultry, fine $50 and costs.

Interstate Medical Co., Kingsley, Iowa, "Tonic Wormite," consisting of Epsom salt, ground wheat, areca nut, ground linseed, and small amounts of American wormseed, soda, salt and charcoal, for worms in pigs and poultry, fine $100 and costs.

H. C. Roberts Co., Sioux City, Iowa, "Essential Food Minerals," consisting of 97.1% lactose and small proportions of salts and plant material, falsely represented as a source of vitamins and as a treatment for vitamin deficiency disease, fine $100 and costs.

Dry Milk for Coccidiosis

By C. W. Sievert

Dry skim milk is the best known and most efficient control medium for coccidiosis. Poultry suffering from the cecal type of coccidiosis can usually be put in good shape by feeding a mash containing approximately 40% of dry skim milk. The other 60% of the mash can be made up of ground grain, wheat bran, middlings, or similar feedstuffs, the exact proportions not being critical.

In the chronic type of coccidiosis, where there is considerable destruction of the intestinal walls, dry milk in the mash provides adequate nutrition, making it possible for the chicken to get as much nourishment as possible through its impaired intestinal walls.

Coccidiosis is also found in rabbits, turkeys, and other animals. The nutritive qualities of dry skim milk are just as important to these animals as for chickens. The use of dry skim milk is the best control medium for coccidiosis that has been evolved so far. Many claims are made for various drugs and patent medicines. Experiment stations, however, very generally agree that dry skim milk in a considerable amount is the best way of combating this disease. It is also necessary to observe a good, strict, sanitary campaign along with the milk feeding in order to avoid reinfestation.

Flavoring Broilers and Fryers with Different Proteins

By A. D. Jackson

The flavor of chicken meat is distinctly modified by certain feeds used in supplying the protein content of the ration, according to R. M. Sherwood, Chief, Division of Poultry Husbandry, Texas Experiment Station, who has been conducting a series of experiments to determine the effects of feeding different types of protein. Mr. Sherwood found that the feeds flavor the meat and that the extent of this influence upon flavor varies somewhat with the character of cooking and also differs when the meat is tasted hot or after it has cooled. He states that while these flavors vary they may not be objectionable, depending upon the different tastes. One flavor may be quite satisfactory to certain persons and not at all satisfactory to other persons. With this point established we should say that we may be selling chickens fattened with soy bean meal for those who like the flavor of that meat and other chickens fattened on sardine meal for those who like that flavor.

But there is another twist to this story and that is that Mr. Sherwood has found that by making up the usual 18 per cent of the ration with high protein feeds, using a combination of, say, 3 of these protein sources about equally to form the protein concentrate, a resulting flavor that is more or less neutral may be obtained and thus the average taste better pleased.

Sherwood's experiments have included studies with meat and bone scraps as the protein source in the ration and he has used sardine meal, dried skimmed milk, cottonseed meal, and soy bean meal. He used 6 different combinations of these several protein additions, and thinks the best combination was 6 pounds each of sardine meal, soy bean meal and cottonseed meal which with 30 pounds of wheat gray shorts, 3 pounds of dehydrated alfalfa leaf meal, 1 pound oyster shell and 48 pounds ground corn made up a very satisfactory ration. He is not satisfied with the mineral level in this ration, however, and is already planning other studies to see if a better balance of the bone meal and oyster shell may be obtained. In these studies he expects to test his mineral combinations with the best as well as the poorest protein combinations.

In his studies with the influence of protein additions, Mr. Sherwood observed due regard for gains in live weight, for good quality of feathers and rapid feather growth, as well as for the prevention of slipped tendons. Having achieved these desirable points he was able then to make nice distinctions in the resulting flavors when the different protein sources were used.

I think it is rather interesting that we are able to produce one or another flavor in chicken meat simply by shifting the source of the protein concentrate and I shall not be surprised if some of the animal nutrition specialists develop a practical means of producing a variety of choice flavors in beef, pork and mutton. At any rate, it is something to be able to decide on a desirable flavor of chicken and then proceed to grow chickens of that flavor.

This matter of flavor and palatability generally is not guesswork for a scientific method has been worked out by Dr. Sylvia Cover of the Rural Home Research Division, wherein a paired-eating system provides a most accurate test of these qualities, and these tests furnish a further guide in the matter of proper cooking.

Of course flavor is not the only consideration in poultry meat production. One of the first considerations is the efficiency of the ration in production of pounds of meat and of chickens that are healthy and of fine appearance; but this must be done with due regard for holding down the cost of the feed. Certain protein concentrates are high in cost, as for example the different forms of milk. In fact, the animal proteins such as milk, meat and bone scrap, and sardine meal are at times higher in price on a protein basis than the vegetable proteins such as cottonseed meal and soy bean meal. In such a case it is desirable to use the vegetable proteins as liberally as possible in the interest of economy but, of course, the ration must not be seriously impaired in so doing. The experiments along this line have shown thus far, that either cottonseed meal or soy bean meal makes an efficient protein addition insofar as gains in weight are concerned; and now in the light of these flavor tests it seems either can be used to form at least a third of the protein part of the ration without impairment of the quality, and it may develop that certain tastes may demand that one of these cheap proteins be used in producing the very flavor desired.

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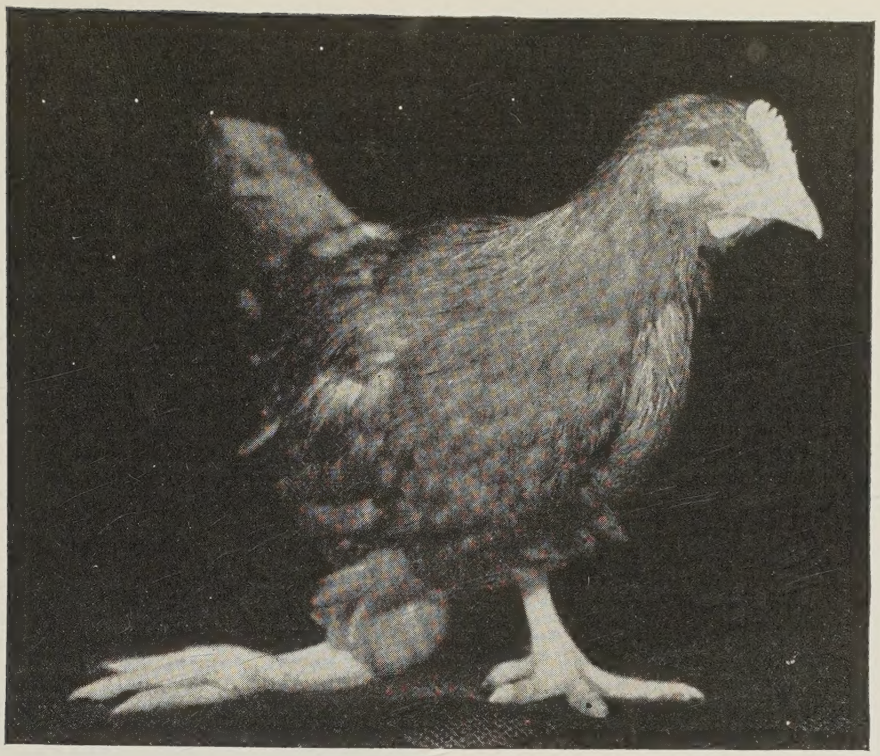

Perosis (Enlarged Hocks or Slipped Tendons) From Cornell Extension Bulletin.

Slipped Tendons in Chickens

Poultrymen are finding as they change to more intensive methods of broiler production, including the use of battery brooders, that it is important to select the proper feeds in order to prevent slipped tendons (sometimes called perosis) and to produce rapid and efficient gains. The condition known as slipped tendons occurs largely from the fourth to the seventh week in the growth period of chickens grown in battery brooders. The symptoms of slipped tendons in the advanced stages are these: the tibial-metatarsal joint is swollen and has a bluish-green color caused apparently by small hemorrhages in the underlying tissue, the tendons slip out of place to either side, and the use of one or both legs is partially or wholly lost. Whether or not the chicken is marketable depends on the severity of the deformity.

The Texas Exp. Sta. has found that rations containing wheat gray shorts milled from hard wheat produced fewer slipped tendons and more rapid gains than rations containing shorts milled from soft wheat when fed to chicks in battery brooders, altho the units of feed necessary to produce a unit of gain in live weight were greater for the shorts milled from hard wheat than for the shorts milled from soft wheat. Hard wheat shorts contain larger amounts of protein, fat, ash, and fiber than soft wheat shorts but the soft wheat shorts contain more nitrogen-free extract than the hard wheat shorts.

The substitution of twenty per cent wheat gray shorts in chick rations for a like amount of ground corn or ground kafir produced more rapid gains and fewer slipped tendons, and required less feed to produce a unit of gain in live weight than did rations not containing wheat gray shorts. Chick rations containing thirty per cent wheat gray shorts produced more rapid gains but required more feed to produce a unit of gain in live weight than did rations containing twenty per cent wheat gray shorts. The presence of twenty per cent of wheat gray shorts in the rations containing 1.20-1.62 per cent calcium and .56-.72 per cent phosphorus had a greater effect in increasing the rate of gain, in reducing the number of chicks developing slipped tendons, and in reducing the units of feed required to produce a unit of gain in live weight than did any of the variations in the percentages of calcium and phosphorus studied. Rations containing 1.90-1.93 per cent calcium and .87-.99 per cent phosphorus, even tho protected by twenty and thirty per cent wheat gray shorts, produced more slipped tendons than did rations containing 1.20-1.62 per cent calcium and .56-.57 per cent phosphorus.

Drs. Willis D. Gallup and L. C. Norris, Department of Poultry Husbandry, Cornell University, added manganese salts to the basal ration in amounts to furnish 50 p.p.m. of manganese. On the basal diet 80 per cent of the chicks developed perosis, while less than 8 per cent developed perosis on the rations containing manganese. As the initial stages of perosis may occasionally occur during embryonic growth, Dr. Norris is directing further investigation to discover means of insuring an adequate supply of manganese during embryonic growth and the early development of the chicks. It is the opinion of these workers that this investigation provides further proof that manganese possesses certain properties of physiological importance.

Previously Wilgus, Norris and Heuser reported that 0.0035 or 0.0160 per cent of manganese imparted perosis preventive quality in rations containing 1.0 to 1.2 per cent of calcium and 0.8 to 1.2 per cent of phosphorus.

The most recent contribution to the study of perosis comes from the agricultural experiment station at Stillwater, Okla., where a five-year experiment has been in progress by V. G. Heller and Robert Penquite, who found that a drinking solution consisting of the water extract of rice bran prevented the occurrence of defective legs.

Ether, alcohol, and water extracts of components of the basal ration, when added to the basal ration, did not aggravate the condition, leading to the conclusion that a missing factor must be responsible.

Water extracts of wheat bran, wheat gray shorts, wheat embryo, and alfalfa did not prove very effective.

The chickens consuming water extracts of rice bran had larger, smoother, and better colored legs than the controls. The growth of the chickens was increased, disproving the statement, often made in the past, that the most rapidly growing chickens were most susceptible to abnormalities.

The ash of 70 pounds of rice bran added to

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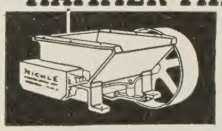
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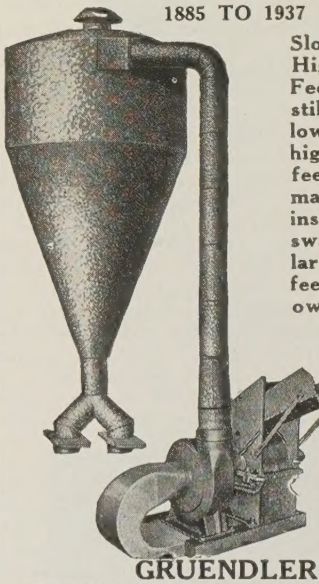
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100 pounds of the basal ration prevented the occurrence of perosis.

A correlation seems to exist between the manganese content and the curative properties of the rations, lending evidence to the theory of others that possibly this ion might be the deficient factor.

High percentages of manganese seem to be detrimental to growth. The fact that some of the best growth and protection came from rations having no manganese addition indicates that there may be other factors involved.

Marks of Mineral Malnutrition

H. H. Mitchell and F. J. McClure, in an extensive paper on the evidences of mineral malnutrition in animals, appearing in a bulletin of the National Research Council, cite symptoms that mark insufficient minerals in an animal's diet. In brief, they say:

Continued feeding of rations deficient in one or more indispensable elements eventually lead to pathological symptoms, morbidity and death; but even before clinical symptoms appear, the productivity of the animal may be impaired. Excessive feeding of mineral elements in the form of inorganic compounds used as supplemental feeds or for therapeutic purposes, may also result in mineral malnutrition, often of very severe types.

Sodium and chlorine: Dairy cows without access to salt exhibit an abnormal appetite for it in two to three weeks' time, but the health of the animals is not affected for a much longer time. This period of immunity varies with individual cows and may extend over a year. Breakdown in health due to lack of salt is marked by "loss of appetite, a generally haggard appearance, lusterless eyes, a rough coat, and a very rapid decline in both live weight and yield of milk." If given before the animal is in a desperate condition, sodium chloride will effect a dramatically rapid recovery.

Experiments indicate that absence of sodium chloride from the laying mash of the hens decreases the rate of egg production and the size of the eggs. Birds lose weight and tend to cannibalism. Chickens have a higher tolerance for salt than is generally believed.

Calcium and phosphorus: Malnutrition may result from feeding rations containing low levels of calcium or of phosphorus, or forms of calcium or phosphorus that are poorly utilized by the animal, or because of disproportion between the calcium and phosphorus contents, or because of the absence of vitamin D from the ration or ultraviolet light from the environment.

Nutritional disturbance of bone growth in very young animals is universally referred to as rickets, characterized by subnormal levels of inorganic phosphorus or of calcium in the blood, and by low percentages of mineral matter in the bones. But the pathological condition existing in the bones varies, being either true rickets, or osteoporosis. Confusion of osteoporosis with rickets may account in part for the differences observed between species when measuring the vitamin D potency of "antirachitics."

Rickets result from impairment of phosphorus assimilation or insufficiency of phosphorus, curable by reducing the calcium content of the diet, by increasing the phosphorus content, or by providing vitamin D or ultraviolet irradiation.

A calcium deficiency will produce osteoporosis, not rickets. Osteoporosis is cured or prevented by raising the level of calcium in the ration.

If the growth of bone in the young animal is arrested or impaired by either rickets or osteoporosis, and subsequent dietary correction is made, the organism attempts to repair the damage to its skeletal structure.

Magnesium: The first effects of magnesium deficiency are increased calcium retention and hypermineralization of the bones. Characteristic changes in the teeth of magnesium-deficient animals indicate that magnesium is essential for the proper formation of the teeth and of their supporting structures. An excess of magnesium is harmful, particularly if the animal diet is also deficient in phosphorus. Possibility of injurious effects from magnesium salts is involved in use of dolomitic limestones as a calcium supplement in livestock feeding. But when added to cereal rations requiring only a calcium supplement, 4 to 5 per cent of limestone containing as much as 40 per cent of magnesium carbonate promotes normal growth and reproduction in cattle, swine and chicks.

Iodine: Certain regions of the North American continent, particularly in the northwest states of this country and adjoining provinces of Canada, suffer from iodine deficiency, resulting in congenital goiter in newborn livestock, frequently also in goiter in growing and adult animals. The remedy is administration of iodides or iodized salt during the gestation period, or in extreme cases, to all stock the year around.

In non-goitrous areas, negative results have in general followed administration of iodine supplements.

Iron and copper: A "salt-sick" condition in cattle, characterized by anemia and debility and prevalent in certain restricted areas in Florida, has proven to be nutritional anemia. The condition, observed similarly in countless other parts of the world, is usually remedied by administration of iron and traces of copper. Copper is associated with iron metabolism.

Manganese: Studies on the effects of manganese deficiency have been almost entirely confined to rats and mice. Deficiencies appear to impair growth and induce disturbances in the estrual cycle. The intimate relation of manganese to the reproductive function is confirmed by constant presence of manganese in the reproductive organs in amounts quite independent of the manganese intake.

Zinc: Zinc prolongs life on vitamin-free diets and stimulates growth. The only symptom of zinc deficiency that has been observed is an interference with development of a normal coat of hair.

Fluorine: No convincing evidence has been produced that fluorine performs any function in animal nutrition. Excessive amounts are highly toxic, the most severe cases being incident to use of rock phosphates as mineral supplements to calcium- or phosphorus-deficient rations. Fluorine is a characteristic constituent of phosphatic rock, generally relatively high in continental deposits of commercial phosphate rock, relatively low in island deposits. Excessive fluorine affects the enamel of the teeth.

Natural waters: The contaminations that natural waters contain may modify, either favorably or adversely, their value to animals consuming them. Inorganic contaminations, mainly consisting of carbonates and sulfates of calcium and magnesium, originate in soils and rocks with which the water comes in contact.

Imports and Exports of Feeds

Imports and exports of feedstuffs during May and during the five months ending May, 1937, compared with the like periods of 1936, as reported by the Buro of Foreign and Domestic Commerce, were as follows, in tons of 2,240 lbs., except where noted otherwise:

IMPORTS

	May		5 Mos. ended May	
	1937	1936	1937	1936
Hay*	23,407	551	125,208	3,398
Coconut cake†	7,448,450	7,826,831	63,231,595	48,948,823
Soybean cake†	14,918,457	581,000	71,652,465	20,321,852
Cottonseed cake†	5,755,787	381,100	32,112,725	3,094,110
Linseed cake†	4,243,240	2,729,920	18,495,261	9,502,202
All other cake†	10,089,416	.....	28,777,177	2,369,132
Wheat fds.*	28,173	32,291	208,508	109,359
Tankage	3,442	4,410	20,064	21,620
Fish scrap	5,713	2,058	53,453	18,803
Beet pulp	2,813	3,221	29,962	9,676

EXPORTS

	May		Five Months ended May	
	1937	1936	1937	1936
Hay	364	311	864	1,097
Cottonseed cake	.....	.....	35	1,957
Linseed cake	31,239	11,363	116,701	76,434
Other oil cake	89	750	388	12,919
Cottonseed meal	130	34	1,145	1,301
Linseed meal	1,890	743	6 593	3,188
Other oil meal	406	3,682	2,891	12,142
Fish meal	.....	179	99	3,038
Mixed dairy feeds	193	173	781	684
Mixed poultry feeds	74	191	628	828
Other prepared and mixed feeds	128	441	382	662
Other feed, bran	644	627	2,345	4,026
Kafir, milo, bus	26	.....	1,217	8
Oyster shells	6,264	5,565	21,574	25,508

*2,000-lb. tons. †Pounds.

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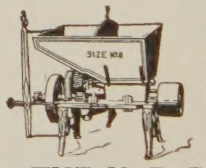

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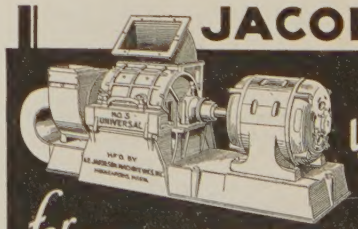

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Vitamin D Milk

W. E. Krauss and R. M. Bethke
of Ohio Exp. Sta.

Practically all natural foods, including milk, either are devoid of vitamin D or contain very little. Certain marine products, as well as eggs produced under proper conditions of feeding and management, are fair to good sources of this factor. The amounts of these foods commonly consumed by children are not sufficiently great to meet the needs of the body for vitamin D. It has been necessary in the past, therefore, to depend upon special vitamin preparations or upon ultraviolet light either from natural sunlight or artificial sources to obtain an adequate amount of this factor. In spite of the availability of many good reliable sources of vitamin D, rickets, the disease resulting from a lack of vitamin D, is still too prevalent. In view of this, and also because there is evidence that some relationship exists between vitamin D and dental caries, and other important processes, especially those associated with calcium and phosphorus metabolism, steps have been taken to increase the vitamin D content of various articles of food. Vitamin D has been added to a number of food materials, but milk seems to be the logical one to be so enriched for the greatest good to the greatest number.

There are several means by which the vitamin D content of milk might be increased:

1. By feeding the cow materials naturally rich in vitamin D, such as pasture (?), good hay, cacao shells, and cod-liver oil.
2. By exposing the cow to sunshine or radiation.
3. By feeding the cow irradiated ergosterol or yeast.
4. By the direct addition of such vitamin D concentrates as concentrates of cod-liver oil and irradiated or activated ergosterol to milk.
5. By direct irradiation of the milk by means of carbon arc lamps or quartz mercury lamps.

All these methods have been tried, with varying degrees of success. As a result of scientific investigations and commercial developments of the past few years, there have evolved three general methods that are adapted to the commercial production of vitamin D milk:

1. Feeding cows irradiated yeast.
2. Irradiating the milk.
3. Adding vitamin D concentrates to milk.

The successful development of these methods for increasing the vitamin D content of milk has created much interest among dairymen and milk dealers and has raised many questions as to which method is best suited to each particular situation.

IRRADIATED YEAST.—The production of vitamin D milk by this method is accomplished by feeding cows irradiated yeast (yeast which has been exposed to ultraviolet light until it contains not less than 1,600,000 U.S.P. units of vitamin D per pound).

Table 1.—Amount of Yeast to Be Fed at Different Levels of Milk Production and the Cost per Quart of 430-U. S. P. Unit-Vitamin D Milk

Average daily milk production per cow Lb.	Amount of yeast required daily (Average per cow) Oz.	Approximate yeast cost per quart of milk Ct.
Up to 20	3¾	0.70
21 to 25	4½	0.63
26 to 30	5	0.60
31 to 35	5½	0.58
36 to 40	6¼	0.55
41 to 45	6¾	0.54
46 to 50	7¼	0.53

If desired, each cow may be fed the yeast separately at each milking. A more convenient method consists of mixing a certain amount of yeast, based on the average production of the herd, with the grain mixture. Thus, when the grain is fed according to milk production, the higher producers automatically get more yeast.

Experimental work on the relationship between the amount of irradiated yeast required to produce milk containing 430 U.S.P. units per quart (the present standard) and the amount of milk produced has resulted in the following fundamental principles:

1. The amount of irradiated yeast to be fed depends upon the milk production of the cows.
2. High producers are somewhat more efficient than low producers in transferring vitamin D from the ration to the milk.
3. The yeast must be fed two or more times daily, that is, at each milking, rather than all at one feeding.

The schedule in Table 1 shows the relationship between the amount of yeast required and milk production, and points out the economy of the higher producers.

After the yeast-feeding program is begun it requires 18 days for the milk to attain its maximum vitamin D potency. At this point a sample of milk is submitted for testing to insure that it contains the required vitamin D potency.

Because of patents, the irradiated yeast used must be obtained from Standard Brands Incorporated, 595 Madison Avenue, New York City, and a license fee of $1.00 per cow per year must be paid to the Wisconsin Alumni Research Foundation, Madison, Wisconsin.

The chief advantage of this system of producing vitamin D milk lies in the fact that when the milk leaves the cow it contains the required amount of vitamin D and no further treatment is needed. The resulting product in this case may be termed "milk naturally rich in vitamin D." It is for this reason that the American Ass'n of Medical Milk Commissions specifies that vitamin D certified milk can be produced only by the yeast-feeding method.

Hay Movement in July

Receipts and shipments of hay at the various markets during July, compared with July, 1936, in tons, were:

	Receipts		Shipments	
	1937	1936	1937	1936
Baltimore	.....	91	.....	.....
Boston	506	770	.....	.....
Chicago	913	881	.....	48
Ft. Worth	55	.....	.....	.....
Kansas City	4,956	14,676	540	2,304
Minneapolis	71	139	.....	.....
Peoria	40	30	.....	20
San Francisco	840	132	.....	.....

Why has the price declined in the face of such strong underlying fundamentals? A seller must find a buyer, and a moving crop calls for constant speculative purchases to take care of the hedging sales. These purchases reached the saturation point and there were no export sales to buoy the market, hence wheat fell under its own weight. Europeans need much foreign wheat, but many countries lack normal foreign exchange facilities, hence there is good reason for their playing for lower prices while our crop is moving and looking for a home—Graham & Co.

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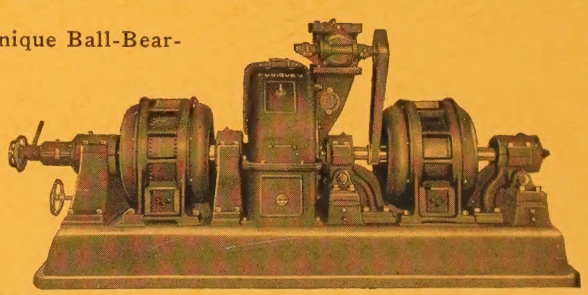
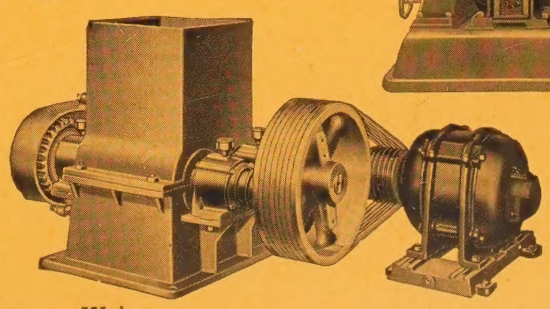
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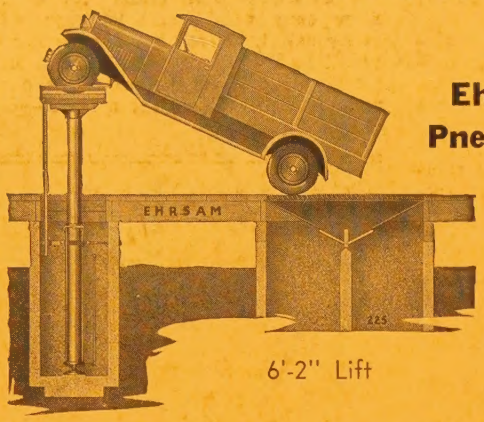

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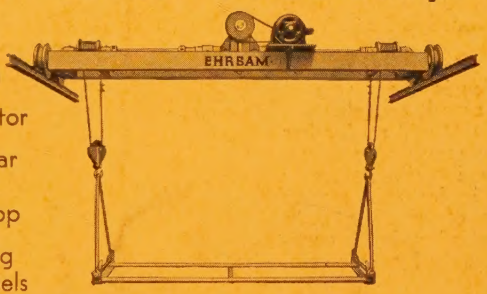

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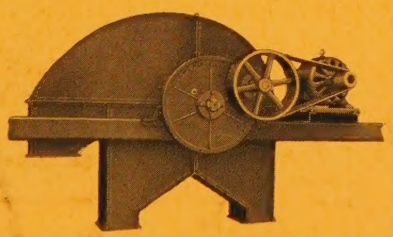

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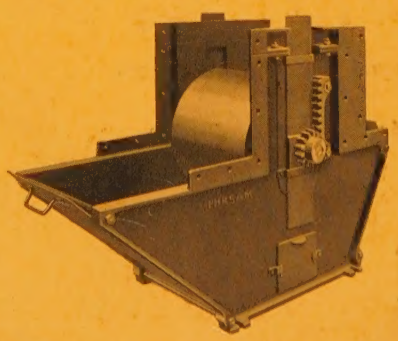
Automatic Takeup

Timken Roller Bearings Grease Only at Long Intervals



Everything for the Country and Terminal Elevator

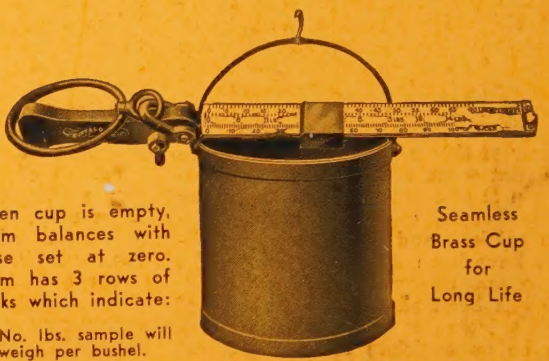
Write for Literature

The J. B. EHRSAM & SONS MFG. CO.
ENTERPRISE, KANSAS

Chicago Sales Representative
W. H. Kent, 549 W. Washington Blvd.

How this BUFFALO GRAIN TESTER

Checks Quality Weight and % of Loss



When cup is empty, beam balances with poise set at zero. Beam has 3 rows of marks which indicate:

1. No. lbs. sample will weigh per bushel.
2. Exact weight of sample.
3. Percent of loss after cleaning.

Seamless Brass Cup for Long Life

Manufactured in Four Sizes

No. 1764—½ pint capacity
No. 1763—1 pint capacity
No. 1765—1 quart capacity
No. 1767—2 quart capacity

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Most Effective Fumigants Known

FOR CONTROLLING FLOUR MILL AND GRAIN INSECTS

LIQUID HCN is the standard fumigant by which others are compared. It has never been surpassed in insect-killing power and economy. Safely applied with scientific thoroughness through a simple piping system—*from outside of the building.*

CYANOGAS. Used widely for fumigating mills and warehouses—no apparatus needed—simply scatter on floor. Ease of application and economy with great efficiency make it ideal for fumigation of warehouses, grain bins, freight cars, "spot" fumigation and fumigation of grain in bins.

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